



# ***STIC Search Report***

**EIC 1700**

STIC Database Tracking Number: 106013

**TO: Katarzyna Wyrozebski Lee**  
**Location: CP3 5E09**  
**Art Unit : 1714**  
**October 16, 2003**

**Case Serial Number: 09/936598**

**From: Kathleen Fuller**  
**Location: EIC 1700**  
**CP3/4 3D62**  
**Phone: 308-4290**

**Kathleen.Fuller@uspto.gov**

## **Search Notes**



# EIC1700

## Search Results

### Feedback Form (Optional)



Scientific & Technical Information Center

The search results generated for your recent request are attached. If you have any questions or comments (compliments or complaints) about the scope or the results of the search, please contact *the EIC searcher* who conducted the search *or contact*:

Kathleen Fuller, Team Leader, 308-4290, CP3/4 3D62

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#### *Voluntary Results Feedback Form*

➤ *I am an examiner in Workgroup:*  *Example:*

➤ *Relevant prior art found, search results used as follows:*

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

*Types of relevant prior art found:*

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature  
(journal articles, conference proceedings, new product announcements etc.)

➤ *Relevant prior art not found:*

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Search results were not useful in determining patentability or understanding the invention.

**Other Comments:**

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Drop off completed forms in CP3/4 - 3D62 .

106013

Fuller, Kathleen

From: Wyrozebski, Katarzyna  
Sent: Wednesday, October 15, 2003 12:26 PM  
To: Fuller, Kathleen  
Subject: Hi Kathleen

I was wondering if you would be able to conduct a search for me.

Application SN 09/936508 (IFW application) having following claim 1:

1. (As Amended) A coating composition for metal capable of being formed into a container, said coating composition comprising:

- a) a polyester resin in the amount of 20-50% by wt., said polyester resin comprising trimethylolpropane in the amount of 0.1-10% by wt., neopentylglycol in the amount of 15-30% by wt., at least one other polyol in the amount of 5-20% by wt., a phthalic acid in the amount of 20-60% by wt., and adipic acid in the amount of 10-35% by wt.;
- b) a resin in the amount of 1-15% by wt. and comprising a condensation product made from a phenol or homologue thereof and formaldehyde; and
- c) a solvent component in the amount of 35-70% by wt., all foregoing weight percentages being based on the total weight of the coating composition; and

the coating composition being substantially free of bisphenol-A-diglycidyl ether, bisphenol-F-diglycidyl ether, homologues thereof, and polyvinyl chloride.

I am having trouble with the polyester polymer having rather detailed components: trimethylol propane, neopentyl glycol, other polyol, phthalic acid and adipic acid.

The inventors are Christian Vogt and Peter Ambrosi, it is a 371 of PCT/EP00/01065 and priority to application 199 12 974.8 filed on 3/16/1999.

The European search report is in the application, however references provided are overcome by the amendment to claim 1 (above).

V/R  
Kat.

Katarzyna Wyrozebski-Lee  
U.S. Patent and Trademark Office  
(703) 306-5875

=> file reg

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STRUCTURE FILE UPDATES: 15 OCT 2003 HIGHEST RN 605619-14-5  
DICTIONARY FILE UPDATES: 15 OCT 2003 HIGHEST RN 605619-14-5

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP  
PROPERTIES for more information. See STNote 27, Searching Properties  
in the CAS Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> file hcaplus

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FILE COVERS 1907 - 16 Oct 2003 VOL 139 ISS 16  
FILE LAST UPDATED: 15 Oct 2003 (20031015/ED)

This file contains CAS Registry Numbers for easy and accurate  
substance identification.

=> d que

L5	14850	SEA	FILE=REGISTRY	ABB=ON	77-99-6/CRN
L7	16127	SEA	FILE=REGISTRY	ABB=ON	126-30-7/CRN
L9	28693	SEA	FILE=REGISTRY	ABB=ON	124-04-9/CRN
L10	1811	SEA	FILE=REGISTRY	ABB=ON	L5 AND L7 AND L9
L13	171045	SEA	FILE=REGISTRY	ABB=ON	<u>POLYESTER/PCT</u>
L24	285	SEA	FILE=REGISTRY	ABB=ON	L10 AND <u>PHTHAL?</u>
L25	268	SEA	FILE=REGISTRY	ABB=ON	L13 AND L24
L26	48	SEA	FILE=REGISTRY	ABB=ON	L25 AND <u>5/NC</u>
L27	167	SEA	FILE=HCAPLUS	ABB=ON	L26

*trimethylol propane  
resorcinyl glycol  
adipic acid*

*5 components in  
the polymer*

L28 149 SEA FILE=HCAPLUS ABB=ON L27 AND COATING?/SC  
L29 10 SEA FILE=HCAPLUS ABB=ON L28 AND CAN#

=> d l29 all 1-10 hitstr

L29 ANSWER 1 OF 10 HCAPLUS COPYRIGHT 2003 ACS on STN  
AN 2002:800385 HCAPLUS  
DN 138:222998  
TI Spectroscopic adsorption and effective dosage in accelerated weathering of a polyester-urethane coating  
AU Croll, S. G.; Skaja, A. D.  
CS Department of Polymers and Coatings, North Dakota State University, Fargo, ND, 58105-5376, USA  
SO Journal of Materials Science (2002), 37(22), 4889-4900  
CODEN: JMTSAS; ISSN: 0022-2461  
PB Kluwer Academic Publishers  
DT Journal  
LA English  
CC 42-4 (Coatings, Inks, and Related Products)  
AB Topcoat integrity is a crucial property for coating systems for protecting metal substrates in conjunction with anti-corrosion primers. IR spectroscopy was used to examine the chem. changes seen during accelerated weathering in a model topcoat urethane polymer and to measure the coating ablation. During weathering the UV absorbance of the urethane coating showed a typical tail (yellowing) into the visible region that increased with exposure period. Effective UV dosage can be calcd. by integrating the spectrum of the incident radiation with the quantum yield for the degrdn. process and the UV absorption of the material under investigation. Depending on the form of the quantum yield, there is a clear acceleration of the absorption of damaging radiation because the absorbance increases with exposure. This non-linear relationship offers possibilities on how to est. a service lifetime; one could choose a value of the exposure period characteristic of the start of the acceleration in dosage, or one might choose the asymptote at which the dosage rate becomes very great. The UV tailing into the visible region is analyzed as an example of an "Urbach" tail which is usually attributed to structural disorder that introduces energy levels between the principle electronic states.  
ST UV weathering polyester polyurethane coating  
IT Weathering  
(accelerated; spectroscopic adsorption and effective dosage in accelerated weathering of a polyester-urethane coating)  
IT Polyurethanes, uses  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(polyester-, coating; spectroscopic adsorption and effective dosage in accelerated weathering of a polyester-urethane coating)  
IT Polymer degradation  
(radiochem., UV; spectroscopic adsorption and effective dosage in accelerated weathering of a polyester-urethane coating)  
IT Coating materials  
(topcoats; spectroscopic adsorption and effective dosage in accelerated weathering of a polyester-urethane coating)  
IT 475661-20-2, Adipic acid-Desmodur N3300-isophthalic acid-neopentyl glycol-trimethylolpropane copolymer  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(spectroscopic adsorption and effective dosage in accelerated weathering of a polyester-urethane coating)

RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD RE

- (1) Allen, N; Polym Deg Stab 1987, V19, P147 HCAPLUS
  - (2) Allen, N; Polym Deg Stab 2001, V71, P1 HCAPLUS
  - (3) Bauer, D; J Coatings Tech 1987, V59(755), P103 HCAPLUS
  - (4) Bauer, D; Polym Deg Stab 2000, V69, P307 HCAPLUS
  - (5) Bierwagen, G; Prog Org Coatings 2001, V41, P201 HCAPLUS
  - (6) Cohen, S; J Polym Sci: A-1 1971, V9, P3263 HCAPLUS
  - (7) Connell, G; Topics in Applied Physics 1985, V36
  - (8) Croll, S; 2nd International Conference on Methodologies and Meterologies for Service Life Prediction 1999
  - (9) Das, P; Polym Deg Stab 1995, V48, P11 HCAPLUS
  - (10) Davidson, R; J Photochemistry and Photobiology B 1996, V33, P3 HCAPLUS
  - (11) Gerlock, J; Polym Deg Stab 1998, V62, P225 HCAPLUS
  - (12) Gupta, S; J Polym Sci: B 2000, V38, P1589 HCAPLUS
  - (13) Horak, M; Interpretation and Processing of Vibrational Spectra 1978
  - (14) Jaffe, H; Theory and Applications of Ultraviolet Spectroscopy 1965
  - (15) John, S; Phys Rev B 1988, V37(12), P6963
  - (16) Kim, H; Langmuir 2000, V16, P5382 HCAPLUS
  - (17) Maerov, S; J Polym Sci: A 1965, V3, P487
  - (18) Martin, J; Prog Org Coatings 1993, V23, P49 HCAPLUS
  - (19) Mishra, R; Nucl Inst Meth Phys Res B 2000, V168, P59 HCAPLUS
  - (20) Mullins, O; Appl Spectroscopy 1992, V46(2), P354 HCAPLUS
  - (21) O'Leary, S; J Appl Phys 1997, V82, P3334 HCAPLUS
  - (22) Perrin, F; Polym Deg Stab 2000, V70, P469
  - (23) Rivaton, A; Polym Deg Stab 1988, V62, P127
  - (24) Rivaton, A; Polym Deg Stab 1998, V62, P127 HCAPLUS
  - (25) Smith, B; Infrared Spectral Interpretation, A Systematic Approach 1999
  - (26) Tauc, J; Phys Stat Sol 1966, V15, P627 HCAPLUS
  - (27) van der Ven, L; J Oil and Colour Chemists Assoc 1991, V74(11), P401 HCAPLUS
  - (28) Wicks, Z; Organic Coatings: Science and Technology, 2nd ed 1994
  - (29) Wilhelm, C; Polymer 1998, V39(5), P1223 HCAPLUS
  - (30) Wilhelm, C; Polymer 1998, V39(24), P5973 HCAPLUS
  - (31) Wypch, G; Handbook of Material Weathering, 2nd ed 1995
- IT 475661-20-2, Adipic acid-Desmodur N3300-isophthalic acid-neopentyl glycol-trimethylolpropane copolymer  
 RL: FRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(spectroscopic adsorption and effective dosage in accelerated weathering of a polyester-urethane coating)

RN 475661-20-2 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with Desmodur N 3300, 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and hexanedioic acid (9CI) (CA INDEX NAME)

CM 1

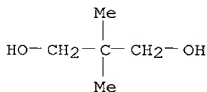
CRN 104559-01-5  
 CMF Unspecified  
 CCI MAN

*mystery component*

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

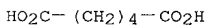
CRN 126-30-7  
CMF C5 H12 O2



*neopentyl glycol*

CM 3

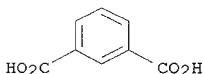
CRN 124-04-9  
CMF C6 H10 O4



*adipic acid*

CM 4

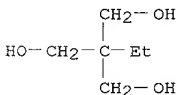
CRN 121-91-5  
CMF C8 H6 O4



*phthalic acid?*

CM 5

CRN 77-99-6  
CMF C6 H14 O3



*trimethylol propane*

L29 ANSWER 2 OF 10 HCAPLUS COPYRIGHT 2003 ACS on STN  
AN 2002:700421 HCAPLUS  
DN 137:386046  
TI Quantitative use of ultraviolet spectroscopy to calculate the effective  
irradiation dosage during weathering  
AU Croll, Stuart; Skaja, Allen  
CS Department of Polymers and Coatings, North Dakota State University, Fargo,  
ND, 58105, USA  
SO Macromolecular Symposia (2002), 187(Quo Vadis-Coatings?), 861-871

CODEN: MSYMEC; ISSN: 1022-1360  
PB Wiley-VCH Verlag GmbH  
DT Journal  
LA English  
CC 42-4 (Coatings, Inks, and Related Products)  
AB The UV absorbance of a urethane coating showed typical yellowing that increased with exposure period. An effective dosage was calcd. from the solar spectrum, the quantum yield for the degrdn. process and the UV absorption. Assuming a const. quantum yield, there is a clear acceleration of the absorption of damaging radiation because the UV absorption increases with exposure. This nonlinear relationship offers possibilities on how to est. a service lifetime. In addn., the yellowing **can** be analyzed as an "Urbach" tail which is usually attributed to structural disorder that introduces energy levels between the ground and excited electronic states.  
ST polyurethane coating weathering yellowing UV dosage  
IT Coating materials  
UV and visible spectroscopy  
Weathering  
Yellowing  
(calcn. of effective UV irradiation dosage during weathering of urethane coatings detd. by UV spectroscopy)  
IT Polyurethanes, uses  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(calcn. of effective UV irradiation dosage during weathering of urethane coatings detd. by UV spectroscopy)  
IT 475661-20-2, Neopentyl glycol-trimethylolpropane-isophthalic acid-adipic acid-Desmodur N 3300 copolymer  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(calcn. of effective UV irradiation dosage during weathering of urethane coatings detd. by UV spectroscopy)  
RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE  
(1) Allen, N; Polym Degrad Stab 1987, V19, P147 HCAPLUS  
(2) Allen, N; Polym Degrad Stab 2001, V71, P1 HCAPLUS  
(3) Bauer, D; J Coatings Technol 1987, V59, P103 HCAPLUS  
(4) Cohen, S; J Polym Sci: A-1 1971, V9, P3263 HCAPLUS  
(5) Das, P; Polym Degrad Stab 1995, V48, P11 HCAPLUS  
(6) Davidson, R; J Photochemistry and Photobiology B 1996, V33, P3 HCAPLUS  
(7) Gerlock, J; Polym Degrad Stab 1998, V62, P225 HCAPLUS  
(8) Gupta, S; J Polym Sci B 2000, V38, P1589 HCAPLUS  
(9) Jaffe, H; Theory and Applications of Ultraviolet Spectroscopy 1965  
(10) John, S; Phys Rev B 1988, V37, P6963  
(11) Maerov, S; J Polym Sci A 1965, V3, P487  
(12) Martin, J; Prog Org Coatings 1993, V23, P49 HCAPLUS  
(13) Mishra, R; Nucl Inst Meth Phys Res B 2000, V168, P59 HCAPLUS  
(14) Mullins, O; App Spectroscopy 1992, V46, P354 HCAPLUS  
(15) O'Leary, S; J Appl Phys 1997, V82, P3334 HCAPLUS  
(16) Perrin, F; Polym Degrad Stab 2000, V70, P469  
(17) Rivaton, A; Polym Degrad Stab 1998, V62, P127 HCAPLUS  
(18) Rivaton, A; Polym Degrad Stab 1998, V62, P127 HCAPLUS  
(19) Tauc, J; Phys Stat Sol 1966, V15, P627 HCAPLUS  
(20) Van Der Ven, L; J Oil and Colour Chemists Assoc 1991, V74, P401 HCAPLUS  
(21) Wilhelm, C; Polymer 1998, V39, P5973 HCAPLUS



IT 475661-20-2, Neopentyl glycol-trimethylolpropane-isophthalic acid-adipic acid-Desmodur N 3300 copolymer  
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (calcn. of effective UV irradiation dosage during weathering of urethane coatings detd. by UV spectroscopy)

RN 475661-20-2 HCAPLUS  
 CN 1,3-Benzenedicarboxylic acid, polymer with Desmodur N 3300, 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and hexanedioic acid (9CI) (CA INDEX NAME)

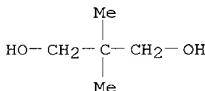
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CRN 104559-01-5  
 CMF Unspecified  
 CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

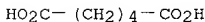
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CRN 126-30-7  
 CMF C5 H12 O2



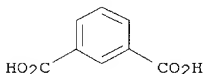
CM 3

CRN 124-04-9  
 CMF C6 H10 O4



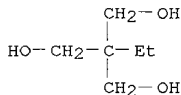
CM 4

CRN 121-91-5  
 CMF C8 H6 O4



CM 5

CRN 77-99-6  
CMF C6 H14 O3



L29 ANSWER 3 OF 10 HCAPLUS COPYRIGHT 2003 ACS on STN  
AN 2002:700392 HCAPLUS  
DN 138:5602  
TI Dual-cure processes: Towards deformable crosslinked coatings  
AU El-Ghayoury, Abdelkrim; Boukaftane, Chouaib; de Ruiter, Barteld; van der Linde, Rob  
CS Department of Polymer Technology, TNO Industrial Technology, Eindhoven, 5600 HE, Neth.  
SO Macromolecular Symposia (2002), 187(Quo Vadis-Coatings?), 553-561  
CODEN: MSYMEC; ISSN: 1022-1360  
PB Wiley-VCH Verlag GmbH  
DT Journal  
LA English  
CC 42-3 (Coatings, Inks, and Related Products)  
AB Two dual-cure processes consisting of a UV-initiated radical polymn. followed by either a UV-induced cationic polymn., or a thermal addn. reaction, were investigated. The feasibility of the processes was studied using an acrylate-oxetane monomer for the UV combination, and an acrylated oligoester for the UV/heat combination. It was shown by FTIR and Tg measurements, that both steps of each process could be performed efficiently and sep. This allowed the prodn. of a deformable partially cured coating, whose cure **can** then be completed, leading to the required final properties. Furthermore, it was demonstrated that the increase of the functionality of the reactive diluent led to a decrease of the thermal crosslinking extent. This is probably due to the reduced mobility of the reactive species that is caused by an enhanced UV crosslinking taking place during the first step.  
ST dual cure deformable crosslinking coating  
IT Coating process  
Crosslinking  
(UV/UV or UV/heat dual cure processes for prepn. of deformable crosslinked coatings)  
IT Polyesters, uses  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); TEM (Technical or engineered material use); PROC (Process); RACT (Reactant or reagent); USES (Uses)  
(acrylate-terminated; UV/UV or UV/heat dual cure processes for prepn. of deformable crosslinked coatings)  
IT 476358-66-4 **476615-40-4**, Trimethylolpropane-neopentyl glycol-adipic acid-isophthalic acid copolymer, acrylate  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); TEM (Technical or engineered material use); PROC (Process); RACT (Reactant or reagent); USES (Uses)  
(UV/UV or UV/heat dual cure processes for prepn. of deformable crosslinked coatings)

IT 449404-55-1, Desmodur BL 3272MPA

RL: MOA (Modifier or additive use); USES (Uses)  
(crosslinking agent; UV/UV or UV/heat dual cure processes for prepn. of  
deformable crosslinked coatings)

RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Boeckeler, R; US 4548895 1985 HCAPLUS
- (2) Boeckeler, R; US 4444806 1988 HCAPLUS
- (3) Boeckeler, R; US 5679719 1997 HCAPLUS
- (4) Boeckeler, R; Radcure, Conf Proc 10th 1986, P16/1 HCAPLUS
- (5) Davidson, R; Exploring the science technology and applications of UV and EB curing 1991, P327
- (6) Decker, C; J Macromol Sci - Pure Appl Chem 1997, VA34, P605 HCAPLUS
- (7) Decker, C; Materials Science and Technology 1997, V18, P615 HCAPLUS
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- (10) McGinnis, V; 8th Symposium 1978
- (11) Noomen, A; J Oil Col Chem Assoc 1989, V64, P347
- (12) Noomen, A; Sassenheim, Neth Congr Fatipec 1980, V15(1), P346
- (13) Noomen, A; Sassenheim, Neth Congr Fatipec 1984, V17(1), P255
- (14) Pappas, S; UV-Curing Science and Technology 1978-1985, V1 and 2
- (15) Peeters, S; Polymers Paints Colour Journal 1989, V179, P304 HCAPLUS
- (16) Peeters, S; Radiation Curing in Polymer Science and Technology 1993, V3 HCAPLUS
- (17) Roffey, C; Photopolymerization of surface coatings 1982
- (18) Rohm and Haas company; EP 0335629 A2 1989
- (19) Sasaki, H; J Macromol Sci-Pure Appl Chem 1995, VA32, P1699 HCAPLUS
- (20) Stohr, A; Macromol Chem Phys 1998, V199, P751 HCAPLUS
- (21) Vabrik, R; J Appl Polym Sci 1998, V68, P111 HCAPLUS
- (22) Vansteenkiste, S; Macromolecules 1999, V32, P55 HCAPLUS

IT 476615-40-4, Trimethylolpropane-neopentyl glycol-adipic acid-isophthalic acid copolymer, acrylate

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); TEM (Technical or engineered material use); PROC (Process); RACT (Reactant or reagent); USES (Uses)  
(UV/UV or UV/heat dual cure processes for prepn. of deformable crosslinked coatings)

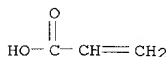
RN 476615-40-4 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and hexanedioic acid, 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7

CMF C3 H4 O2



CM 2

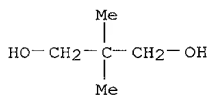
CRN 25950-34-9

CMF (C8 H6 O4 . C6 H14 O3 . C6 H10 O4 . C5 H12 O2)x

CCI PMS

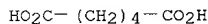
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CRN 126-30-7  
CMF C5 H12 O2



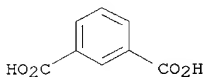
CM 4

CRN 124-04-9  
CMF C6 H10 O4



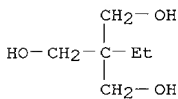
CM 5

CRN 121-91-5  
CMF C8 H6 O4



CM 6

CRN 77-99-6  
CMF C6 H14 O3



L29 ANSWER 4 OF 10 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1997:684149 HCAPLUS

DN 127:320094

TI Liquid thermoset sealers and sealing process for molded plastics

IN Kausch, Charles M.; Livigni, Russell A.; Melby, Earl G.; Sharma, Satish C.

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

PA Cambridge Industries, Inc., USA  
 SO U.S., 7 pp., Cont. of U. S. Ser. No. 81,767, abandoned.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 IC ICM B05D001-38  
 ICS B05D003-02  
 NCL 427258000  
 CC 42-11 (Coatings, Inks, and Related Products)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5674565	A	19971007	US 1994-361913	19941222
PRAI	US 1993-81767		19930623		

AB Porous surfaces that can be generated during the manufg. and processing of molded plastic parts are sealed by applying liq. thermoset coatings to preheated (49-204.degree.) parts and curing to create a barrier on the surface to gasses generated during heat curing of subsequently applied surface coatings. The liq. thermosetting compn. consists essentially of (a) an unsatd. polyester resin and/or a vinyl ester resin; .gtoreq.1 crosslinking ethylenically unsatd. monomer; and an initiator, optionally with an accelerator or mixt. of accelerators; or (b) a reaction product of .gtoreq.1 polyisocyanate with .gtoreq.1 member selected from the group consisting of polyols, polyamines, polymercaptans, and polycarboxylic acids; or (c) the reaction product of (b) and a crosslinker having functionality greater than 2 selected from species reactive with isocyanate; or (d) combinations of (a) and (b); or (e) a satd. polyester, polyether, or acrylic resin contg. .gtoreq.2 hydroxyl and/or carboxyl groups per mol. along with an alkylated urea-formaldehyde resin, melamine-formaldehyde resin, or benzoguanamine-formaldehyde resin, and optional components selected from the group consisting of fillers, conductive pigments, antioxidants, pigments, moisture scavengers, low profile additives, and diluents.

ST liq thermoset sealers molded plastic; fiber reinforced molded plastic coating; unsatd polyester sealing coating; polyurethane sealing coating

IT Epoxy resins, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (acrylates; liq. thermoset sealers and sealing process for molded plastics)

IT Molded plastics, miscellaneous  
 RL: MSC (Miscellaneous)  
 (fiber-reinforced, thermoset; liq. thermoset sealers and sealing process for molded plastics)

IT Coating process  
 Sealing compositions  
 (liq. thermoset sealers and sealing process for molded plastics)

IT Acrylic polymers, uses  
 Aminoplasts  
 Polyesters, uses  
 Polyethers, uses  
 Polyoxyalkylenes, uses  
 Polyurethanes, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (liq. thermoset sealers and sealing process for molded plastics)

IT Polyesters, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (unsatd.; liq. thermoset sealers and sealing process for molded plastics)

IT 101-68-8 103-71-9, Phenyl isocyanate, uses 9003-08-1, Melamine-formaldehyde resin 9003-20-7, LP-90 9011-05-6, Urea-formaldehyde resin 9051-49-4, PEP 550 25101-03-5, Poly(propylene adipate) 25190-06-1 25322-69-4 26160-89-4, Benzoguanamine-formaldehyde resin 27083-66-5, Polypropylene fumarate 27813-02-1, Hydroxypropyl methacrylate 27941-08-8, Poly(propylene adipate) 37278-49-2, Polypropylene fumarate, sru 39394-41-7, Isonate 143L 55818-57-0, Bisphenol A-epichlorohydrin copolymer, acrylate 79793-81-0, Adipic acid-1,4-cyclohexanedimethanol-2,2-dimethyl-1,3-propanediol-phthalic anhydride-trimethylolpropane copolymer 172964-74-8, Isonate 2191 197592-44-2, Lupranate M

RL: TEM (Technical or engineered material use); USES (Uses)

(liq. thermoset sealers and sealing process for molded plastics)

IT 79793-81-0, Adipic acid-1,4-cyclohexanedimethanol-2,2-dimethyl-1,3-propanediol-phthalic anhydride-trimethylolpropane copolymer

RL: TEM (Technical or engineered material use); USES (Uses)

(liq. thermoset sealers and sealing process for molded plastics)

RN 79793-81-0 HCAPLUS

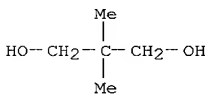
CN Hexanedioic acid, polymer with 1,4-cyclohexanedimethanol, 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and 1,3-isobenzofurandione (9CI) (CA INDEX NAME)

CM 1

CRN 126-30-7

CMF C5 H12 O2

*has all 5 components*



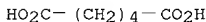
*neopentyl glycol*

CM 2

CRN 124-04-9

CMF C6 H10 O4

*adipic acid*

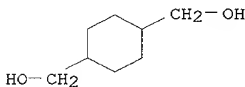


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CRN 105-08-8

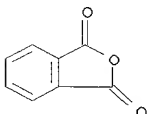
CMF C8 H16 O2

*polyol*



CM 4

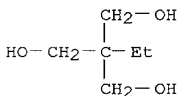
CRN 85-44-9  
CMF C8 H4 O3



*phthalic anhydride*

CM 5

CRN 77-99-6  
CMF C6 H14 O3



*trimethylolpropane*

L29 ANSWER 5 OF 10 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1996:628296 HCAPLUS

DN 125:250529

TI Corrosion-, retort-, and water-resistant modified epoxy resin coatings for beverage cans

IN Iwahashi, Masanori; Takahashi, Masahiro; Fujii, Shigenori

PA Dainippon Ink & Chemicals, Japan

SO Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09D163-00

ICA C08G059-14; C08G059-16

CC 42-9 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08188741	A2	19960723	JP 1995-4000	19950113
PRAI	JP 1995-4000		19950113		

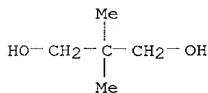
AB Title org. solvent coatings contain epoxy resins modified by (un)satd. carboxylic acid (derivs.) or oxycarboxylic acids and P compds. contg. .gtoreq.2 OH groups. An org. solvent soln. contg. p-toluenesulfonic acid, and a polymer blend of Super-Beckamine L 125-60 40%, acrylic acid-Bu acrylate-Bu methacrylate-Me methacrylate-styrene copolymer 50%, and Epikote 1001 hydroxypivalate ester phosphite ester Et3N salt 10% showed good storage stability at 40.degree. over 1 mo and gloss, transparency, hardness, and corrosion/water/retort resistance.

- ST phosphoric carboxylic acid modified epoxy coating; phosphorous carboxylic acid modified epoxy coating; retort resistance **can** coating modified epoxy; storage stability **can** coating modified epoxy
- IT Epoxy resins, uses  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (**can** coatings contg. phosphoric (or phosphorous) acid- and carboxylic acid-modified epoxy resins)
- IT Acrylic polymers, uses  
Aminoplasts  
Polyesters, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (**can** coatings contg. phosphoric (or phosphorous) acid- and carboxylic acid-modified epoxy resins)
- IT Coating materials  
(anticorrosive, water-resistant, storage-stable, **can** coatings contg. phosphoric (or phosphorous) acid- and carboxylic acid-modified epoxy resins)
- IT 9003-08-1, Super-beckamine L 125-60 26160-89-4, Benzoguanamine-formaldehyde copolymer 39527-54-3, Acrylic acid-butyl acrylate-butyl methacrylate-methyl methacrylate-styrene copolymer **52247-59-3**, Adipic acid-isophthalic acid-neopentyl glycol-terephthalic acid-trimethylolpropane copolymer  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (**can** coatings contg. phosphoric (or phosphorous) acid- and carboxylic acid-modified epoxy resins)
- IT 173008-72-5P 182075-61-2P 182075-63-4P 182075-65-6P 182075-67-8P 182075-69-0P 182075-71-4P 182075-72-5P 182075-74-7P  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (org. solvent compns. with acrylic resins or polyesters for **can** coatings)
- IT **52247-59-3**, Adipic acid-isophthalic acid-neopentyl glycol-terephthalic acid-trimethylolpropane copolymer  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (**can** coatings contg. phosphoric (or phosphorous) acid- and carboxylic acid-modified epoxy resins)
- RN 52247-59-3 HCAPLUS
- CN 1,3-Benzenedicarboxylic acid, polymer with 1,4-benzenedicarboxylic acid, 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and hexanedioic acid (9CI) (CA INDEX NAME)

CM 1

CRN 126-30-7

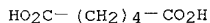
CMF C5 H12 O2





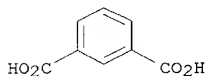
CM 2

CRN 124-04-9  
CMF C6 H10 O4



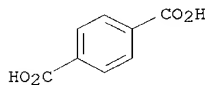
CM 3

CRN 121-91-5  
CMF C8 H6 O4



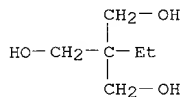
CM 4

CRN 100-21-0  
CMF C8 H6 O4



CM 5

CRN 77-99-6  
CMF C6 H14 O3



L29 ANSWER 6 OF 10 HCAPLUS COPYRIGHT 2003 ACS on STN  
AN 1994:10458 HCAPLUS  
DN 120:10458  
TI Manufacture of storage-stable aqueous polymer dispersion coatings  
IN Amemoto, Masahide  
PA Dainippon Ink & Chemicals, Japan  
SO Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C09D005-00  
 ICA B29B007-74  
 CC 42-10 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 47

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05098192	A2	19930420	JP 1991-257877	19911004
PRAI	JP 1991-257877		19911004		
AB	The title coating, which <b>can</b> be baked at low temp. (115.degree., 20 min) to form films with good balance of adhesion, hardness, and blister, alk. and solvent resistance, are prepd. by charging mixts. of H2O hardener and resins of acid value .ltoreq.50 into a chamber (contg. hole- and channel-contg. disks) under pressure, and emulsifying the mixts. through impacting the mixts. to the disk surfaces at 102-104 kg/cm2. A mixt. of H2O 140, Super-Beckamine J 820 40, and a soya oil-pentaerythritol-castor oil-phthalic anhydride-ethylene glycol polymer 100 parts was emulsified by a microfluidizer at 103 kg/cm2 to form a dispersion with good storage stability at room temp. for 3 mo.				
ST	alkyd resin aq dispersion storage stability; low temp cure aq alkyd resin; microfluidizer aq alkyd resin dispersion				
IT	Soybean oil RL: USES (Uses) (alkyd resins from, aq emulsion coating contg., low temp.-curable, storage-stable, manuf. by microfluidizers)				
IT	Acrylic polymers, uses Alkyd resins Fluoropolymers Polyesters, uses RL: PREP (Preparation) (aq. emulsion coatings, low temp.-curable, storage-stable, manuf. of, by microfluidizers)				
IT	Fluidized beds and systems (micro-, as emulsifying app, prepn. of storage-stable aq. coatings by)				
IT	Emulsification (app., contg. hole- and channel-contg. disks, prepn. of storage-stable and low temp.-curable aq. coatings by)				
IT	Fatty acids, compounds RL: USES (Uses) (castor-oil, alkyd resins from, aq emulsion coating contg., low temp.-curable, storage-stable, manuf. by microfluidizers)				
IT	Epoxy resins, compounds RL: PREP (Preparation) (esters, aq. emulsion coatings, low temp.-curable, storage-stable, manuf. of, by microfluidizers)				
IT	Fatty acids, compounds RL: USES (Uses) (soya, reaction products with epoxy resins, aq. emulsion coating contg., low temp.-curable, storage-stable, manuf. by microfluidizers)				
IT	Coating materials (storage-stable, aq. emulsions, low temp.-curable, manuf. of, by microfluidizers)				
IT	85-44-9DP, Phthalic anhydride, reaction products with ethylene glycol and pentaerythritol and soya oil and castor-oil fatty acids 107-21-1DP, Ethylene glycol, reaction products with phthalic anhydride and				

pentaerythritol and soya oil and castor-oil fatty acids 115-77-5DP,  
 Pentaerythritol, reaction products with phthalic anhydride and ethylene  
 glycol and soya oil and castor-oil fatty acids 25068-38-6DP, Epiclon  
 4055, reaction products with soya fatty acids 31227-05-1P  
 151752-78-2P 151752-79-3P

RL: PREP (Preparation)

(aq. emulsion coatings, low temp.-curable, storage-stable, manuf. of,  
 by microfluidizers)

IT 9003-08-1P, Super-Berkamine J 820

RL: PREP (Preparation)

(aq. emulsions contg. alkyd, epoxy, polyester or fluoro resins and, low  
 temp.-curable, storage-stable, manuf. by microfluidizers)

IT 31227-05-1P

RL: PREP (Preparation)

(aq. emulsion coatings, low temp.-curable, storage-stable, manuf. of,  
 by microfluidizers)

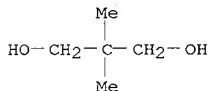
RN 31227-05-1 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 2,2-dimethyl-1,3-propanediol,  
 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, hexanedioic acid and  
 4,4'-(1-methylethylidene)bis[cyclohexanol] (9CI) (CA INDEX NAME)

CM 1

CRN 126-30-7

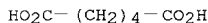
CMF C5 H12 O2



CM 2

CRN 124-04-9

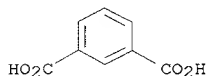
CMF C6 H10 O4



CM 3

CRN 121-91-5

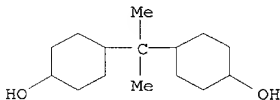
CMF C8 H6 O4



CM 4

CRN 80-04-6

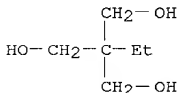
CMF C15 H28 O2



CM 5

CRN 77-99-6

CMF C6 H14 O3



L29 ANSWER 7 OF 10 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1988:592256 HCAPLUS

DN 109:192256

TI Aqueous coating compositions for cans from aluminum, tinplate and steel

IN Scherping, K. H.; Hoelscher, Hans Joerg; Reichelt, Uwe; Reiter, Udo

PA BASF Lacke und Farben A.-G., Fed. Rep. Ger.

SO Ger. Offen., 10 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM C09D003-58

ICS C09D003-64; C09D003-76; C09D003-52; C09D005-44; B05D001-02; C25D013-14

CC 42-7 (Coatings, Inks, and Related Products)

Section cross-reference(s): 55, 56

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3627860	A1	19880218	DE 1986-3627860	19860816
	EP 256521	A1	19880224	EP 1987-111720	19870813
	EP 256521	B1	19901114		
	R: ES, GR				
	WO 8801287	A1	19880225	WO 1987-EP445	19870813
	W: AU, BR, DK, FI, JP, NO, SU, US				
	RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
	AU 8777888	A1	19880308	AU 1987-77888	19870813
	AU 607934	B2	19910321		
	JP 01501482	T2	19890525	JP 1987-504771	19870813
	JP 2536889	B2	19960925		

EP 324741	A1	19890726	EP 1987-905209	19870813
R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE				
BR 8707772	A	19890815	BR 1987-7772	19870813
AT 58389	E	19901115	AT 1987-111720	19870813
RU 2074210	C1	19970227	RU 1987-4613521	19870813
ZA 8706028	A	19880427	ZA 1987-6028	19870814
CA 1306566	A1	19920818	CA 1987-544527	19870814
CN 87106405	A	19880727	CN 1987-106405	19870815
CN 1012069	B	19910320		
NO 8801601	A	19880614	NO 1988-1601	19880413
DK 8802046	A	19880615	DK 1988-2046	19880414
US 4997865	A	19910305	US 1989-327964	19890214
FI 8900718	A	19890215	FI 1989-718	19890215
FI 97065	B	19960628		
FI 97065	C	19961010		
US 5114993	A	19920519	US 1991-642243	19910108
LT 3311	B	19950626	LT 1993-527	19930506
LV 10473	B	19960420	LV 1993-431	19930527
PRAI DE 1986-3627860	A	19860816		
EP 1987-111720	A	19870813		
WO 1987-EP445	A	19870813		
US 1989-327964	A3	19890214		
AB	The title compns., useful in electrodiap coating, contain 3-70% binders, 5-16% phenolic resins and/or aminoplasts, 2-5% NH3 and/or amines, and 20-60% org. solvents. The binders comprise epoxy resins 20-80, polyester polycarboxylic acids (acid no. 30-150) 1-60, and unsatd. monomers (10-50% carboxylated) 10-50%, and have acid no. 20-150. A binder was prepd. by peroxide-initiated polymn. of acrylic acid 130, styrene 160, and Bu acrylate 40 g in the presence of 2400 g condensate (acid no. 20) of 1050 g bisphenol A epoxy resin (epoxy equiv. 3400) and 1000 g polyester (acid no. 85) from isophthalic acid 1330, adipic acid 145, neopentyl glycol 780, trimethylolpropane 268, and trimellitic anhydride 500 g, and heated with 190 g methylolated bisphenol A-HCHO resin. A 12% aq. dispersion (sp. cond. 2 mS/cm) of this compn. (80% neutralized with N,N-dimethylethanolamine) was electrodeposited on a tinplate <b>can</b> to give a coating with low porosity and good adhesion and resistance to sterilization.			
ST	<b>can</b> coating electrophoretic; epoxy resin coating <b>can</b> ; polyester epoxy coating <b>can</b> ; acrylic polymer coating <b>can</b> ; phenolic resin coating <b>can</b> ; electrodiap coating <b>can</b>			
IT	Crosslinking agents (aminoplasts and phenolic resins, for electrophoretic coatings for <b>cans</b> )			
IT	<b>Cans</b> (electrophoretic coatings for, carboxylated polyester-epoxy resin reaction products as)			
IT	Fatty acids, esters RL: USES (Uses) (branched, esters, glycidyl alc., epoxy resin-polyester electrophoretic coatings contg., for <b>cans</b> )			
IT	Coating materials (electrophoretic, carboxylated polyester-epoxy resin reaction products and crosslinking agents, for <b>cans</b> )			
IT	7429-90-5, uses and miscellaneous RL: USES (Uses) ( <b>cans</b> , electrophoretic coatings for, epoxy resin-polyesters as)			
IT	552-30-7D, polymers with glycidyl versatate, reaction products with epoxy			

resins 25068-38-6D, reaction products with carboxylated polyesters 25586-20-3D, Acrylic acid-butyl acrylate-styrene copolymer, reaction products with epoxy resins and phenolic resins **64112-55-6D**, Adipic acid-isophthalic acid-neopentyl glycol-trimellitic anhydride-trimethylolpropane copolymer, reaction products with epoxy resins

RL: TEM (Technical or engineered material use); USES (Uses)

(coatings, electrophoretic, for **cans**)

IT 9003-08-1, Formaldehyde-melamine copolymer 25085-75-0, Bisphenol A-formaldehyde copolymer

RL: MOA (Modifier or additive use); USES (Uses)

(crosslinking agents, for electrophoretic coatings for **cans**)

IT 115341-59-8

RL: USES (Uses)

(electrophoretic coatings for **cans**)

IT **64112-55-6D**, Adipic acid-isophthalic acid-neopentyl glycol-trimellitic anhydride-trimethylolpropane copolymer, reaction products with epoxy resins

RL: TEM (Technical or engineered material use); USES (Uses)

(coatings, electrophoretic, for **cans**)

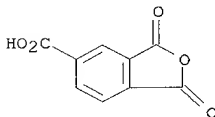
RN 64112-55-6 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 1,3-dihydro-1,3-dioxo-5-isobenzofurancarboxylic acid, 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and hexanedioic acid (9CI) (CA INDEX NAME)

CM 1

CRN 552-30-7

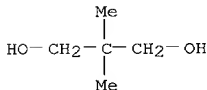
CMF C9 H4 O5



CM 2

CRN 126-30-7

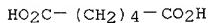
CMF C5 H12 O2



CM 3

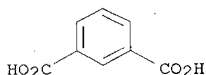
CRN 124-04-9

CMF C6 H10 O4



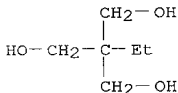
CM 4

CRN 121-91-5  
CMF C8 H6 O4



CM 5

CRN 77-99-6  
CMF C6 H14 O3



L29 ANSWER 8 OF 10 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1978:581336 HCAPLUS

DN 89:181336

TI Thermosetting coating composition

IN Kraft, Kurt; Walz, Gerd; Wirth, Thaddaeus

PA Hoechst A.-G., Fed. Rep. Ger.

SO Ger. Offen., 27 pp.

CODEN: GWXXBX

DT Patent

LA German

IC C09D003-64

CC 42-9 (Coatings, Inks, and Related Products)

Section cross-reference(s): 55

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2707018	A1	19780831	DE 1977-2707018	19770218
	DE 2707018	C2	19870319		
	CH 635610	A	19830415	CH 1978-1556	19780213
	US 4208488	A	19800617	US 1978-877868	19780215
	CA 1104746	A1	19810707	CA 1978-296888	19780215
	BE 864093	A1	19780817	BE 1978-185286	19780217
	SE 7801875	A	19780818	SE 1978-1875	19780217
	DK 7800729	A	19780819	DK 1978-729	19780217

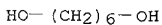
	NO 7800557	A	19780821	NO 1978-557	19780217
	NL 7801853	A	19780822	NL 1978-1853	19780217
	JP 53104632	A2	19780912	JP 1978-16630	19780217
	JP 62051986	B4	19871102		
	FR 2381087	A1	19780915	FR 1978-4534	19780217
	FR 2381087	B1	19801219		
	BR 7800979	A	19781010	BR 1978-979	19780217
	ZA 7800933	A	19790228	ZA 1978-933	19780217
	AT 7801184	A	19791015	AT 1978-1184	19780217
	AT 356778	B	19800527		
	GB 1590351	A	19810603	GB 1978-6430	19780217
	SU 1037845	A3	19830823	SU 1978-2579904	19780217
PRAI	DE 1977-2707018		19770218		
	DE 1977-2757533		19771223		
AB	Thermosetting coating compns. which are highly reactive and can be applied as powders or solns. contain hydroxylated or epoxidized oligomers and a trimellitic acid (I)-contg. polycarboxylic acid mixt. which contains I partial esters. Thus, 427 parts of a 1.2:2 1,2-propanediol-I anhydride mixt. contg. I anhydride 9.4, bis(ester anhydride) 50.2, and oligomers 40.4% was dissolved in 427 parts BuO(CH <sub>2</sub> ) <sub>2</sub> OAc, heated to 80.degree., treated with 36 parts water, and heated 3 h at 60-80.degree., giving a 52% solids soln. of the mixed CO <sub>2</sub> H-substituted reaction product (A). A 70% xylene soln. of an oil-free polyester from trimethylolpropane 550, 1,6-hexanediol 100, neopentyl glycol 1000, phthalic anhydride 1150, and adipic acid 740 parts was mixed in a ratio of 75:25 (as solids) with the A soln., mixed with an equal amt. (on solids) of TiO <sub>2</sub> , dild. to sprayable viscosity with BuO(CH <sub>2</sub> ) <sub>2</sub> OAc, and sprayed on a degreased steel sheet, giving a coating suitable as a leveling layer between primer and topcoat or as a rapid curing coating, e.g. 1-3 min at 200-50.degree..				
ST	hydroxylated polyester thermosetting coating; steel thermosetting coating; trimellitate oligomer crosslinker coating; carboxylated oligomer crosslinker coating				
IT	Crosslinking agents (trimellitic acid partial esters, for thermosetting epoxidized or hydroxylated oligomers)				
IT	Adhesives (hot-melt, epoxidized or hydroxylated oligomers, trimellitic acid partial esters as crosslinking agents for)				
IT	Coating materials (thermosetting, epoxidized or hydroxylated oligomers contg. trimellitic acid ester mixts.)				
IT	25068-38-6 63814-82-4 <b>64385-79-1</b> RL: TEM (Technical or engineered material use); USES (Uses) (coatings, crosslinking agents for, trimellitic acid partial esters as)				
IT	43011-20-7D, hydrolyzed 59480-26-1D, hydrolyzed 63948-88-9D, hydrolyzed 68183-37-9D, hydrolyzed 68183-38-0D, hydrolyzed 68183-39-1D, hydrolyzed 68183-40-4D, hydrolyzed RL: USES (Uses) (oligomeric, crosslinking agents, for epoxidized or hydroxylated oligomeric coating materials)				
IT	<b>64385-79-1</b> RL: TEM (Technical or engineered material use); USES (Uses) (coatings, crosslinking agents for, trimellitic acid partial esters as)				
RN	64385-79-1 HCAPLUS				
CN	Hexanedioic acid, polymer with 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, 1,6-hexanediol and 1,3-isobenzofurandione (9CI) (CA INDEX NAME)				



*has all components*

CM 1

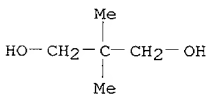
CRN 629-11-8  
CMF C6 H14 O2



*polyol*

CM 2

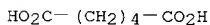
CRN 126-30-7  
CMF C5 H12 O2



*neopentyl glycol*

CM 3

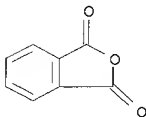
CRN 124-04-9  
CMF C6 H10 O4



*adipic*

CM 4

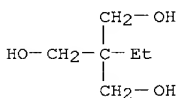
CRN 85-44-9  
CMF C8 H4 O3



*phthalic anhydride*

CM 5

CRN 77-99-6  
CMF C6 H14 O3



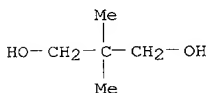
*Trimethylolpropane*

L29 ANSWER 9 OF 10 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1978:154504 HCAPLUS  
 DN 88:154504  
 TI Powder coating composition  
 IN Diefenbach, Horst  
 PA BASF A.-G., Fed. Rep. Ger.  
 SO Ger. Offen., 13 pp.  
 CODEN: GWXXBX  
 DT Patent  
 LA German  
 IC C09D003-72  
 CC 42-10 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 59

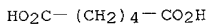
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2633385	A1	19780126	DE 1976-2633385	19760724
PRAI	DE 1976-2633385		19760724		
AB	Powder coating compns. that can be crosslinked at 150-200.degree. and which liberated a nonpolluting byproduct into the environment during crosslinking contain .gtoreq.1 hydroxyl group-contg. resin (OH no. 30-200, glass temp. 35-95, av. mol. wt. 1,000-10,000) and .gtoreq.1di- or polyacyl isocyanate, capped with an aliph. monoalkanol, optionally contg. .gtoreq.1 ether groups. Thus, 1:10:19:30:40 acrylic acid-Bu acrylate-hydroxypropyl acrylate-Me methacrylate-styrene copolymer [52522-02-8] (K value 23, 3% soln. in Me2CO) 228.7, [BuO2CNHCO(CH2)2]2 [66065-44-9] 56.3, bisphenol A epoxy resin (epoxide equiv. 450-500, OH no. 180) 15, poly(Bu acrylate) 3, finely divided silicic acid 2, and TiO2 195 parts were mixed in a continuous kneader at 100.degree.. The resulting melt was cooled, milled to a powder of particle size 90 .mu.m, electrostatically sprayed on degreased steel sheet, and hardened 30 min at 160.degree. to give a 100 .mu.m coating with pencil hardness 154, Erichsen value 0.3, and bending test value 2-3.				
ST	powder coating; hydroxy group contg copolymer coating; diisocyanate alc capped coating; epoxy powder coating; air pollution free powder coating				
IT	Urethane polymers, uses and miscellaneous RL: TEM (Technical or engineered material use); USES (Uses) (coatings, powder, from carbamates and hydroxylated polymers)				
IT	Air pollution (prevention of, in manuf. of coatings from powders contg. hydroxylated polymers and carbamates)				
IT	Coating materials (powder, carbamate-hydroxylated polymer, with reduced crosslinking temp. and air pollution tendency)				
IT	52522-02-8 RL: USES (Uses) (coatings contg. bisphenol A epoxy resins, carbamates and, powder)				
IT	66065-42-7 66065-44-9 RL: USES (Uses)				

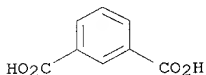
(coatings contg. bisphenol A epoxy resins, hydroxylated polymers and, powder)  
IT 35561-07-0  
RL: USES (Uses)  
(coatings contg. carbamates and, powder)  
IT 80-05-7D, epoxy resin derivs.  
RL: USES (Uses)  
(coatings contg. carbamates, hydroxylated polymers and, powder)  
IT 66065-43-8  
RL: USES (Uses)  
(coatings contg. polyesters and, powder)  
IT 35561-07-0  
RL: USES (Uses)  
(coatings contg. carbamates and, powder)  
RN 35561-07-0 HCAPLUS  
CN 1,3-Benzenedicarboxylic acid, polymer with 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, hexanedioic acid and 1,3-isobenzofurandione (9CI) (CA INDEX NAME)  
CM 1  
CRN 126-30-7  
CMF C5 H12 O2



CM 2  
CRN 124-04-9  
CMF C6 H10 O4

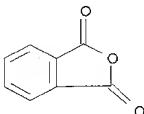


CM 3  
CRN 121-91-5  
CMF C8 H6 O4



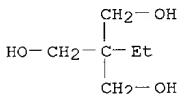
CM 4

CRN 85-44-9  
CMF C8 H4 O3



CM 5

CRN 77-99-6  
CMF C6 H14 O3



L29 ANSWER 10 OF 10 HCAPLUS COPYRIGHT 2003 ACS on STN  
AN 1975:412372 HCAPLUS  
DN 83:12372  
TI Polyester powder coatings  
IN Dawkins, Peter J.; Arkle, Keith P.; Derbyshire, Arnold  
PA Briggs and Townsend Ltd.  
SO Ger. Offen., 14 pp.  
CODEN: GWXXBX  
DT Patent  
LA German  
IC C09D  
CC 42-9 (Coatings, Inks, and Related Products)  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2429517	A1	19750130	DE 1974-2429517	19740620
	GB 1450414	A	19760922	GB 1973-29634	19740620
	FR 2234357	A1	19750117	FR 1974-21618	19740621
PRAI	GB 1973-29634		19730621		

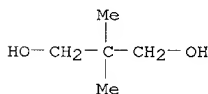
AB Thermosetting, 1-component powder coatings are prep'd. by reaction of OH-terminated polyesters with blocked polyisocyanates. Thus, cyclohexyl (3-isocyanato-4-methylphenyl) carbamate [55250-76-5] (prep'd. from 19.385 g TDI and 11.141 g alc.) is heated at 100-150.degree. with 100 g 2:3:6.66:2:1.74 adipic acid-isophthalic acid-neopentyl glycol-phthalic anhydride-trimethylolpropane polymer [35561-07-0] (OH no. 125, softening point .apprx.25.degree.) and 0.25 g Bu2Sn dilaurate to give a brittle solid, m. 70.degree.. The product is mixed at 150.degree. with pigments, ground, electrostatically coated on metals, and cured 30 min at 200.degree. to give 25-100 .mu. coatings which can be bent 170.degree. without cracking.

ST polyester powder coating; crosslinking powder coating; isocyanate blocked

crosslinker; TDI blocked crosslinker; cyclohexanol blocked TDI  
 IT Crosslinking agents  
     (blocked isocyanates, for polyester powder coatings)  
 IT Coating materials  
     (polyesters, contg. blocked isocyanates, for powder coating)  
 IT 55250-76-5  
     RL: MOA (Modifier or additive use); USES (Uses)  
         (crosslinking agents, for polyester powder coatings)  
 IT 25669-13-0 **35561-07-0**  
     RL: USES (Uses)  
         (powder coatings, contg. blocked isocyanate crosslinkers)  
 IT **35561-07-0**  
     RL: USES (Uses)  
         (powder coatings, contg. blocked isocyanate crosslinkers)  
 RN 35561-07-0 HCAPLUS  
 CN 1,3-Benzenedicarboxylic acid, polymer with 2,2-dimethyl-1,3-propanediol,  
     2-ethyl-2-(hydroxymethyl)-1,3-propanediol, hexanedioic acid and  
     1,3-isobenzofurandione (9CI) (CA INDEX NAME)

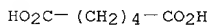
CM 1

CRN 126-30-7  
 CMF C5 H12 O2



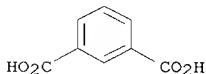
CM 2

CRN 124-04-9  
 CMF C6 H10 O4



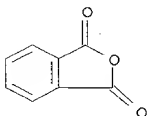
CM 3

CRN 121-91-5  
 CMF C8 H6 O4



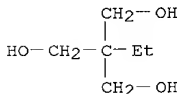
CM 4

CRN 85-44-9  
CMF C8 H4 O3



CM 5

CRN 77-99-6  
CMF C6 H14 O3



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L5	14850	SEA	FILE=REGISTRY	ABB=ON	77-99-6/CRN
L7	16127	SEA	FILE=REGISTRY	ABB=ON	126-30-7/CRN
L9	28693	SEA	FILE=REGISTRY	ABB=ON	124-04-9/CRN
L10	1811	SEA	FILE=REGISTRY	ABB=ON	L5 AND L7 AND L9
L13	171045	SEA	FILE=REGISTRY	ABB=ON	POLYESTER/PCT
L24	285	SEA	FILE=REGISTRY	ABB=ON	L10 AND PHTHAL?
L25	268	SEA	FILE=REGISTRY	ABB=ON	L13 AND L24
L26	48	SEA	FILE=REGISTRY	ABB=ON	L25 AND 5/NC
L27	167	SEA	FILE=HCAPLUS	ABB=ON	L26
L28	149	SEA	FILE=HCAPLUS	ABB=ON	L27 AND COATING?/SC
L29	10	SEA	FILE=HCAPLUS	ABB=ON	L28 AND CAN#
L30	6	SEA	FILE=HCAPLUS	ABB=ON	L27 AND CAN#(3A) COAT?
L35	0	SEA	FILE=HCAPLUS	ABB=ON	(L29 OR L30) NOT L29

=> d que

L5	14850	SEA	FILE=REGISTRY	ABB=ON	77-99-6/CRN
L6	1	SEA	FILE=REGISTRY	ABB=ON	"NEOPENTYL GLYCOL"/CN
L7	16127	SEA	FILE=REGISTRY	ABB=ON	126-30-7/CRN
L8	1	SEA	FILE=REGISTRY	ABB=ON	"ADIPIC ACID"/CN
L9	28693	SEA	FILE=REGISTRY	ABB=ON	124-04-9/CRN
L10	1811	SEA	FILE=REGISTRY	ABB=ON	L5 AND L7 AND L9
L13	171045	SEA	FILE=REGISTRY	ABB=ON	POLYESTER/PCT
L24	285	SEA	FILE=REGISTRY	ABB=ON	L10 AND PHTHAL?
L25	268	SEA	FILE=REGISTRY	ABB=ON	L13 AND L24
L26	48	SEA	FILE=REGISTRY	ABB=ON	L25 AND 5/NC
L27	167	SEA	FILE=HCAPLUS	ABB=ON	L26
L28	149	SEA	FILE=HCAPLUS	ABB=ON	L27 AND COATING?/SC
L29	10	SEA	FILE=HCAPLUS	ABB=ON	L28 AND CAN#

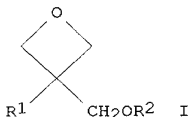
L36 1 SEA FILE=REGISTRY ABB=ON 77-99-6  
 L37 5540 SEA FILE=HCAPLUS ABB=ON L36  
 L38 3660 SEA FILE=HCAPLUS ABB=ON L6  
 L39 11851 SEA FILE=HCAPLUS ABB=ON L8  
 L40 223 SEA FILE=HCAPLUS ABB=ON L37 AND L38 AND L39  
 L42 4 SEA FILE=HCAPLUS ABB=ON L40 AND CAN# (2A) COAT?  
 L43 925 SEA FILE=HCAPLUS ABB=ON L36/DP  
 L44 1 SEA FILE=REGISTRY ABB=ON 126-30-7  
 L45 1 SEA FILE=REGISTRY ABB=ON 124-04-9  
 L46 495 SEA FILE=HCAPLUS ABB=ON L44/DP  
 L47 865 SEA FILE=HCAPLUS ABB=ON L45/DP  
 L48 63 SEA FILE=HCAPLUS ABB=ON L43 AND L46 AND L47  
 L49 44 SEA FILE=HCAPLUS ABB=ON L48 AND COATING?/SC  
 L50 18 SEA FILE=HCAPLUS ABB=ON L49 AND (CAN# OR ALUMINUM OR TIN OR METAL?)  
 L53 29 SEA FILE=HCAPLUS ABB=ON L27 AND (CAN# OR ALUMINUM OR TIN OR METAL?) (4A) COAT?  
 L54 49 SEA FILE=HCAPLUS ABB=ON L42 OR L50 OR L53  
 L55 42 SEA FILE=HCAPLUS ABB=ON L54 NOT L29  
 L56 26 SEA FILE=HCAPLUS ABB=ON L55 AND COMPOSITION?

=> d l56 all 1-26 hitstr

L56 ANSWER 1 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 2003:68819 HCAPLUS  
 DN 138:138898  
 TI UV-curable coating **compositions for metallic cans**  
 IN Takami, Seiji; Hidaka, Takahiro  
 PA Kansai Paint Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 12 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C09D171-00  
 ICS B05D003-06; B05D007-14; B05D007-24; C08G065-18; C09D005-00;  
 C09D163-00; C09D163-08; C09D201-06  
 CC 42-10 (Coatings, Inks, and Related Products)  
 FAN.CNT 1  

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003026993	A2	20030129	JP 2001-211485	20010712
PRAI JP 2001-211485		20010712		

 GI



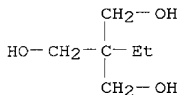
AB Title comps., with good adhesion to printing inks and clear coats, contain 100 parts blends of 1-80% oxetanes I [R1 = H, F, Cl-6

(cyclo)alkyl, C1-6 (cyclo) fluoroalkyl, aryl, allyl, aralkyl, furyl, thienyl; R2 = C6-20 alkyl or alkenyl] and 20-99% I-excluded cationic polymerizable compds., 0.01-20 parts UV-induced cationic polymn. initiators, and 1-30 parts stearic acid-treated Al powders with av. diam. of 1-50 .mu.m. A steel plate was coated with a **compn.** contg. 3-ethyl-3-hydroxymethyloxetane 30, 3-ethyl-3-n-octyloxymethyloxetane 10, Cyracure UVR 6110 50, CAT 001 (fatty acid-modified epoxy resin) 10, Cyracure UVI 6990 5, PI 2074 1, and Hi-Print 30T (stearic acid-treated Al flakes) 15 parts, UV-cured to form a **metallic** film, then printed with an alkyd resin ink (to cover 50% of **metallic** film area), totally covered with an aq. clear contg. acrylic styrene resin, and baked at 200.degree. for 2 min to form a clear film showing pencil hardness 3 H initially and after retort treatment (in 125.degree. water, 30 min) and good adhesion before and after retort treatment.

- ST UV curable oxetane epoxy resin **coating metal cans**; cationic polymn oxetane epoxy resin UV curable coating; ink adhesion **metallic** oxetane epoxy resin coating; clear topcoat adhesion **metallic** oxetane epoxy resin coating
- IT Coating materials  
(UV-curable; UV-curable **metallic** oxetane/epoxy resin coatings with good adhesion to inks and clear topcoats for **metal cans**)
- IT Polyesters, uses  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(acrylic, clear topcoats; UV-curable **metallic** oxetane/epoxy resin coatings with good adhesion to inks and clear topcoats for **metal cans**)
- IT Polyethers, uses  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(epoxy; UV-curable **metallic** oxetane/epoxy resin coatings with good adhesion to inks and clear topcoats for **metal cans**)
- IT Linseed oil  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(linseed oil-based alkyd resins, printing inks; UV-curable **metallic** oxetane/epoxy resin coatings with good adhesion to inks and clear topcoats for **metal cans**)
- IT Alkyd resins  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(linseed oil-based, printing inks; UV-curable **metallic** oxetane/epoxy resin coatings with good adhesion to inks and clear topcoats for **metal cans**)
- IT **Cans**  
(**metallic**; UV-curable **metallic** oxetane/epoxy resin coatings with good adhesion to inks and clear topcoats for **metal cans**)
- IT Epoxy resins, uses  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polyether-; UV-curable **metallic** oxetane/epoxy resin coatings with good adhesion to inks and clear topcoats for **metal cans**)
- IT 104558-95-4, Cyracure UVI 6990 178233-72-2, PI 2074  
RL: CAT (Catalyst use); USES (Uses)

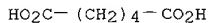


- (UV-curable **metallic** oxetane/epoxy resin coatings with good adhesion to inks and clear topcoats for **metal cans**)
- IT 2386-87-ODP, (3,4-Epoxy cyclohexyl)methyl 3,4-epoxycyclohexanecarboxylate, polymers with epoxidized polybutadiene and 3-ethyl-3-dodecyloxymethylloxetane 9003-17-2DP, Polybutadiene, epoxidized, polymers with 3-ethyl-3-dodecyloxymethylloxetane and (3,4-epoxycyclohexyl)methyl 3,4-epoxycyclohexanecarboxylate 298695-61-1P 403648-79-3DP, polymers with epoxidized polybutadiene and (3,4-epoxycyclohexyl)methyl 3,4-epoxycyclohexanecarboxylate 491608-77-6P 491851-56-0P 491851-57-1P 491851-58-2P 491851-59-3P 491851-61-7P  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
- (UV-curable **metallic** oxetane/epoxy resin coatings with good adhesion to inks and clear topcoats for **metal cans**)
- IT 491845-99-9, High Print HP 30T 491846-48-1, High Print HP 50T  
 RL: TEM (Technical or engineered material use); USES (Uses)
- (UV-curable **metallic** oxetane/epoxy resin coatings with good adhesion to inks and clear topcoats for **metal cans**)
- IT 491608-78-7P  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
- (clear topcoats; UV-curable **metallic** oxetane/epoxy resin coatings with good adhesion to inks and clear topcoats for **metal cans**)
- IT 77-99-6DP, Trimethylolpropane, polymers with diacid and anhydrides and polyhydric alcs. and linseed oil fatty acids 85-44-9DP, Phthalic anhydride, polymers with diacid and polyhydric alcs. and linseed oil fatty acids 124-04-9DP, Adipic acid, polymers with anhydrides and polyhydric alcs. and linseed oil fatty acids 126-30-7DP, Neopentyl glycol, polymers with diacid and anhydrides and polyhydric alcs. and linseed oil fatty acids  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
- (printing inks; UV-curable **metallic** oxetane/epoxy resin coatings with good adhesion to inks and clear topcoats for **metal cans**)
- IT 77-99-6DP, Trimethylolpropane, polymers with diacid and anhydrides and polyhydric alcs. and linseed oil fatty acids 124-04-9DP, Adipic acid, polymers with anhydrides and polyhydric alcs. and linseed oil fatty acids 126-30-7DP, Neopentyl glycol, polymers with diacid and anhydrides and polyhydric alcs. and linseed oil fatty acids  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
- (printing inks; UV-curable **metallic** oxetane/epoxy resin coatings with good adhesion to inks and clear topcoats for **metal cans**)
- RN 77-99-6 HCAPLUS
- CN 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)- (8CI, 9CI) (CA INDEX NAME)



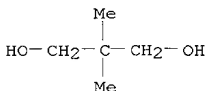
RN 124-04-9 HCAPLUS

CN Hexanedioic acid (9CI) (CA INDEX NAME)



RN 126-30-7 HCAPLUS

CN 1,3-Propanediol, 2,2-dimethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L56 ANSWER 2 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:428961 HCAPLUS

DN 137:21536

TI Clear lacquer coat having two layers for metal strips  
for production of automobile body parts

IN Neppel, Bernhard; Boysen, Johannes

PA Bollig &amp; Kemper GmbH &amp; Co. Kg, Germany

SO PCT Int. Appl., 42 pp.

CODEN: PIXXD2

DT Patent

LA German

IC ICM C08G018-68

ICS C08G018-62; C08G018-40

CC 42-2 (Coatings, Inks, and Related Products)

Section cross-reference(s): 55, 56

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002044237	A1	20020606	WO 2001-DE4480	20011130
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10059856	A1	20020718	DE 2000-10059856	20001130
	AU 2002019000	A5	20020611	AU 2002-19000	20011130
	EP 1348001	A1	20031001	EP 2001-998575	20011130
	R:				
	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
PRAI	DE 2000-10059856	A	20001130		
	WO 2001-DE4480	W	20011130		
AB	A clear lacquer coat was obtained by: (I) application of a non-pigmented intermediate lacquer to a substrate for coating; (II) crosslinking the intermediate lacquer to form an intermediate lacquer coat; (III) application of a non-pigmented finishing lacquer to the intermediate lacquer coat and (IV) crosslinking the finishing lacquer, whereby the				

intermediate lacquer coat has a greater flexibility than finishing lacquer coat. This clear lacquer coat was applied to strips of metal in the manuf. of precoated metal strips with good appearance and improved coating flexibility in prodn. of automobile body parts. A typical intermediate layer was manufd. from a 35.2:303.1:17.6:254.6:8.1 adipic acid-hexahydrophthalic anhydride-maleic anhydride-neopentyl glycol-trimethylolpropane copolymer, and a typical top layer was manufd. from **compn.** contg. 2.3:206.3:284.5:87.6 acrylic acid-2-hydroxyethyl methacrylate-isobornyl methacrylate-Veova 9 copolymer 360, Lumiflon LF 552 (fluoropolymer, 60% soln.) 140, Desmodur BL 3175 150, Vestanat B 1370 175, Tinuvin 1130 20, Tinuvin 292 10, flow control agent 3, dibutyltin laurate 2, and diethylene glycol Bu ether acetate 40 g and dild. with 10 part Solvesso 150.

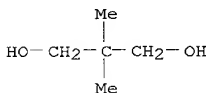
- ST bilayer clearcoat metal strip automobile body; fluoropolymer bilayer clearcoat metal strip; vinyl neononanoate copolymer polyisocyanate crosslinked bilayer clearcoat metal strip; isobornyl methacrylate copolymer polyisocyanate crosslinked bilayer clearcoat metal strip; hydroxyethyl methacrylate copolymer polyisocyanate crosslinked bilayer clearcoat metal strip; hydroxy acrylic polyisocyanate crosslinked bilayer clearcoat metal strip; trimethylolpropane polyester bilayer clearcoat metal strip; maleate polyester bilayer clearcoat metal strip; neopentyl glycol polyester bilayer clearcoat metal strip; hexahydrophthalate polyester bilayer clearcoat metal strip; adipate polyester bilayer clearcoat metal strip
- IT Coating materials  
(acid-resistant; clear lacquer **coat** having two layers for **metal** strips for prodn. of automobile body parts)
- IT Coating materials  
(alkali-resistant; clear lacquer **coat** having two layers for **metal** strips for prodn. of automobile body parts)
- IT Automobiles  
(bodies; clear lacquer **coat** having two layers for **metal** strips for prodn. of automobile body parts)
- IT Fluoropolymers, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(clear lacquer **coat** having two layers for **metal** strips for prodn. of automobile body parts)
- IT Transparent materials  
(coatings; clear lacquer **coat** having two layers for **metal** strips for prodn. of automobile body parts)
- IT Coating materials  
(flexible; clear lacquer **coat** having two layers for **metal** strips for prodn. of automobile body parts)
- IT Coating materials  
(multilayer; clear lacquer **coat** having two layers for **metal** strips for prodn. of automobile body parts)
- IT Coating materials  
(solvent-resistant; clear lacquer **coat** having two layers for **metal** strips for prodn. of automobile body parts)
- IT Coating materials  
(transparent; clear lacquer **coat** having two layers for **metal** strips for prodn. of automobile body parts)
- IT Polyesters, uses  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(unsatd., flexible intermediate layer; clear lacquer **coat** having two layers for **metal** strips for prodn. of automobile

body parts)  
 IT Coating materials  
   (water-resistant; clear lacquer **coat** having two layers for  
   **metal** strips for prodn. of automobile body parts)  
 IT 434312-90-0P, Acrylic acid-2-hydroxyethyl methacrylate-isobornyl  
   methacrylate-Veova 9 copolymer  
   RL: CPS (Chemical process); IMF (Industrial manufacture); PEP (Physical,  
   engineering or chemical process); PREP (Preparation); PROC (Process)  
   (coating precursor; clear lacquer **coat** having two layers for  
   **metal** strips for prodn. of automobile body parts)  
 IT 434941-44-3P  
   RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or  
   engineered material use); PREP (Preparation); USES (Uses)  
   (cured coating; clear lacquer **coat** having two layers for  
   **metal** strips for prodn. of automobile body parts)  
 IT 434312-88-6P, Adipic acid-hexahydrophthalic anhydride-maleic  
   anhydride-neopentyl glycol-trimethylolpropane copolymer  
   RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or  
   engineered material use); PREP (Preparation); USES (Uses)  
   (flexible intermediate layer; clear lacquer **coat** having two  
   layers for **metal** strips for prodn. of automobile body parts)  
 IT 7429-90-5, **Aluminum**, miscellaneous  
   RL: MSC (Miscellaneous)  
   (substrate; clear lacquer **coat** having two layers for  
   **metal** strips for prodn. of automobile body parts)  
 RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 RE  
 (1) Carson, D; US 4720405 A 1988 HCAPLUS  
 (2) Ppg Ind Ohio Inc; WO 9931186 A 1999 HCAPLUS  
 IT 434312-88-6P, Adipic acid-hexahydrophthalic anhydride-maleic  
   anhydride-neopentyl glycol-trimethylolpropane copolymer  
   RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or  
   engineered material use); PREP (Preparation); USES (Uses)  
   (flexible intermediate layer; clear lacquer **coat** having two  
   layers for **metal** strips for prodn. of automobile body parts)  
 RN 434312-88-6 HCAPLUS  
 CN Hexanedioic acid, polymer with 2,2-dimethyl-1,3-propanediol,  
   2-ethyl-2-(hydroxymethyl)-1,3-propanediol, 2,5-furandione and  
   hexahydro-1,3-isobenzofurandione (9CI) (CA INDEX NAME)

CM 1

CRN 126-30-7

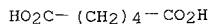
CMF C5 H12 O2



CM 2

CRN 124-04-9

CMF C6 H10 O4



CM 3

CRN 108-31-6

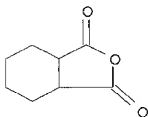
CMF C4 H2 O3



CM 4

CRN 85-42-7

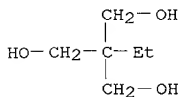
CMF C8 H10 O3



CM 5

CRN 77-99-6

CMF C6 H14 O3



L56 ANSWER 3 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:816238 HCAPLUS

DN 135:359210

TI Aqueous **metallic** coating **compositions** for automobile bodies

IN Yoshioka, Manabu; Sasaki, Shigeyuki; Egusa, Hisafumi; Umakoshi, Atsuo

PA Nippon Paint Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

IC ICM C09D171-00  
 ICS C09D005-02; C09D005-29; C09D133-06; C09D167-00; C09D167-08  
 CC 42-10 (Coatings, Inks, and Related Products)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001311043	A2	20011109	JP 2001-50262	20010226
	GB 2360783	A1	20011003	GB 2001-4263	20010221
	US 2002007769	A1	20020124	US 2001-791849	20010226
PRAI	JP 2000-49808	A	20000225		

AB Title compns., useful in 2-coat-1-bake process, contain pre-dispersed pastes of org. solvents, glossy pigments, and polyether-polyols having av. primary OH groups of .gtoreq.0.02 and water tolerance value of .gtoreq.2.0. A middle **compn.**-coated, cationic **compn.** -electrodeposited, and phosphated steel plate was coated with an aq. **compn.** contg. dimethylethanolamine (I), acrylamide-Et acrylate (II)-Me acrylate-2-hydroxyethyl methacrylate (III)-methacrylic acid (IV)-Aqualon HS 10-Adeka Reasoap NE 20 copolymer I salt, Cymel 204, II-III-IV-Me methacrylate copolymer I salt, III-IV-Bu acrylate-2-ethylhexyl methacrylate-styrene-Phosmer PP copolymer, and pre-dispersed paste (contg. Al paste, Primepol EX 1000, and 2-ethylhexyl glycol), pre-heated, topcoated with Orga TO 563 clear, and baked at 140.degree. for 30 min to form a film showing good warm water resistance and L value of 82%.

ST glossy pigment org solvent polyether polyol predispersed paste; automobile body aq **metallic** base coating

IT Polyesters, uses

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (acrylic-aminoplast-; aq. **metallic** base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)

IT Aminoplasts

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (acrylic-polyester-; aq. **metallic** base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)

IT Polyurethanes, uses

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (acrylic-polyether-; aq. **metallic** base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)

IT Polyethers, uses

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (acrylic-polyurethane-; aq. **metallic** base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)

IT Polyethers, uses

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (acrylic; aq. **metallic** base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)

IT Coconut oil

RL: RCT (Reactant); RACT (Reactant or reagent)

(alkyd resin from; aq. **metallic** base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)

IT Aminoplasts

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(aq. **metallic** base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)

IT Automobiles

(bodies; aq. **metallic** base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)

IT Polyethers, uses

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(hydroxy-contg.; aq. **metallic** base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)

IT Solvents

(org.; aq. **metallic** base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)

IT Coating materials

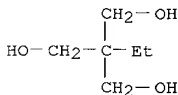
(water-resistant; aq. **metallic** base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)

IT **77-99-6DP**, Trimethylolpropane, polymers with coconut oils and diacids and diols and COOH-contg. acrylic resins and OH-contg. acrylic resins and polyether-polyols and phosphate-contg. acrylic resins, salt with dimethylethanolamine 85-44-9DP, Phthalic anhydride, polymers with coconut oils and diacids and diols and COOH-contg. acrylic resins and OH-contg. acrylic resins and polyether-polyols and phosphate-contg. acrylic resins, salt with dimethylethanolamine 108-01-ODP, Dimethylethanolamine, salts with polymers from OH-contg. acrylic resins and polyether-polyols and coconut oil alkyd resins and COOH-contg. acrylic resins and phosphate-contg. acrylic resins 121-91-5DP, Isophthalic acid, polymers with coconut oils and diacids and diols and COOH-contg. acrylic resins and OH-contg. acrylic resins and polyether-polyols and phosphate-contg. acrylic resins, salt with dimethylethanolamine 124-04-9DP, Adipic acid, polymers with coconut oils and diacids and diols and COOH-contg. acrylic resins and OH-contg. acrylic resins and polyether-polyols and phosphate-contg. acrylic resins, salt with dimethylethanolamine 126-30-7DP, Neopentyl glycol, polymers with coconut oils and diacids and diols and COOH-contg. acrylic resins and OH-contg. acrylic resins and polyether-polyols and phosphate-contg. acrylic resins, salt with dimethylethanolamine 74172-16-ODP, Ethyl acrylate-methyl methacrylate-2-hydroxyethyl methacrylate-methacrylic acid copolymer dimethylethanolamine salt, polymers with polyether-polyols and coconut oil alkyd resins and OH-contg. acrylic resins 372111-61-OP 372111-63-2P, acrylamide-ethyl acrylate-methyl acrylate-2-hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate-Aqualon HS 10-Adeka Reasoap NE 20-polyoxypropylene copolymer dimethylethanolamine salt 372111-65-4DP, polymers with polyether-polyols and coconut oil alkyd

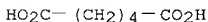
- resins and COOH-contg. acrylic resins 372166-28-4DP, Primepol PX 1000, polymers with coconut oil alkyd resins and COOH-contg. acrylic resins and OH-contg. acrylic resins, salt with dimethylethanolamine 372178-75-1P, acrylamide-butyl acrylate-ethyl acrylate-methyl acrylate-2-ethylhexyl methacrylate-2-hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate-styrene-Aqualon HS 10-Adeka Reasoap NE 20-Primepol PX 1000-Phosmer PP copolymer dimethylethanolamine salt 372178-77-3P 372178-79-5P, acrylamide-ethyl acrylate-methyl acrylate-2-hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate-adipic acid-isophthalic acid-phthalic anhydride-dimethylolpropionic acid-neopentyl glycol-trimethylolpropane-formaldehyde-melamine-Aqualon HS 10-Adeka Reasoap NE 20-Primepol PX 1000 copolymer dimethylethanolamine salt 372519-09-0P 372948-25-9P, acrylamide-butyl acrylate-ethyl acrylate-methyl acrylate-2-ethylhexyl methacrylate-2-hydroxyethyl methacrylate-methacrylic acid-HMDI-methyl methacrylate-styrene-Aqualon HS 10-Adeka Reasoap NE 20-Sannix SP 750-Phosmer PP copolymer dimethylethanolamine salt  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (aq. **metallic** base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)
- IT 94-96-2  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (aq. **metallic** base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)
- IT 9003-08-1, Cymel 204  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
 (aq. **metallic** base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)
- IT 7429-90-5, **Aluminum**, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (paste; aq. **metallic** base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)
- IT 220581-55-5, Orga TO 563 clear  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (topcoat; aq. **metallic** base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile bodies)
- IT 77-99-6DP, Trimethylolpropane, polymers with coconut oils and diacids and diols and COOH-contg. acrylic resins and OH-contg. acrylic resins and polyether-polyols and phosphate-contg. acrylic resins, salt with dimethylethanolamine 124-04-9DP, Adipic acid, polymers with coconut oils and diacids and diols and COOH-contg. acrylic resins and OH-contg. acrylic resins and polyether-polyols and phosphate-contg. acrylic resins, salt with dimethylethanolamine 126-30-7DP, Neopentyl glycol, polymers with coconut oils and diacids and diols and COOH-contg. acrylic resins and OH-contg. acrylic resins and polyether-polyols and phosphate-contg. acrylic resins, salt with dimethylethanolamine  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (aq. **metallic** base coats contg. pre-dispersed pastes of polyether-polyols and glossy pigments and org. solvents for automobile



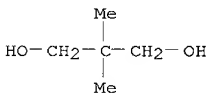
bodies)  
 RN 77-99-6 HCAPLUS  
 CN 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)- (8CI, 9CI) (CA INDEX NAME)



RN 124-04-9 HCAPLUS  
 CN Hexanedioic acid (9CI) (CA INDEX NAME)



RN 126-30-7 HCAPLUS  
 CN 1,3-Propanediol, 2,2-dimethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L56 ANSWER 4 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:38501 HCAPLUS

DN 134:117224

TI Thermally-curable water-thinned coating compositions and multilayered coating films therefrom useful for metal and plastic protection

IN Masuda, Kazuaki; Osugi, Koji; Kuwashima, Teruaki; Harakawa, Takeshi

PA Nippon Paint Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08G018-79

ICS C08G018-83; C09D175-12

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 38, 55

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001011151	A2	20010116	JP 2000-49321	20000225
	GB 2350365	A1	20001129	GB 2000-10275	20000427
	US 6248819	B1	20010619	US 2000-562642	20000501
PRAI	JP 1999-124008	A	19990430		
	JP 2000-49321	A	20000225		

AB The compns. having good water resistance and storage stability comprise a carboxy-contg. water-based polymer (A) and a hydrophilically modified polycarbodiimide (B) which has alternating units of carbodiimides and

alternating units of polyols linking to the previous units by urethane bondings and is terminated with hydrophilic units on 2 ends by urethane bondings. Thus, heating 700 parts 4,4-dicyclohexylmethane diisocyanate in the presence of 14 parts 3-methyl-1-phenyl-2-phospholene-1-oxide at 180.degree. for 16 h, mixing 226.8 parts the resulting polycarbodiimide with 200 parts polypropylene glycol of Mn 2000 and heating at 90.degree. for 3 h in the presence of 0.16 parts dibutyltin dilaurate gave an isocyanate-terminated copolymer which was modified with polyoxyethylene mono(2-ethylhexyl) ether to give a B-type copolymer. Mixing 80 parts a copolymer of Et acrylate 250, 2-hydroxyethyl methacrylate 150, 2-hydroxyethyl acrylate 223, methacrylic acid 77 and styrene 300 parts with 20 parts B and 10 parts pigment paste gave a **compn.** which could be thinned with water.

- ST polyalkylene glycol ether hydrophilic modifier polycarbodiimide coating; water thinned hydrophilic modified polycarbodiimide multiblock copolymer coating; thermosetting hydrophilic modified polycarbodiimide multiblock copolymer coating; dicyclohexylmethane diisocyanate polycarbodiimide polyoxyethylene multiblock copolymer coating; polypropylene glycol carbodiimides multiblock copolymer coating; carboxy contg polymer polycarbodiimide alternating copolymer coating; acrylate polymer polycarbodiimide alternating copolymer coating; multilayered coating polycarbodiimide alternating copolymer
- IT Phenoxy resins  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (acrylic, coating vehicle; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for **metal** and plastic protection)
- IT Fatty acids, uses  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (coco, alkyd resin compds.; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for **metal** and plastic protection)
- IT Polysiloxanes, uses  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (di-Me, hydroxyalkyl Me, ethoxylated, acrylic, coating vehicle; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for **metal** and plastic protection)
- IT Coating materials  
(multilayer; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for **metal** and plastic protection)
- IT Polyesters, uses  
Polyoxyalkylenes, uses  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (polycarbodiimide-, block, hydrophilic component; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for **metal** and plastic protection)
- IT Polyurethanes, uses  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (polycarbonate-, block, coating vehicle; thermally-curable

water-thinned coating compns. and multilayered coating films therefrom useful for **metal** and plastic protection)

IT Polyurethanes, uses

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (polycarbonate-polyurea-; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for **metal** and plastic protection)

IT Polyureas

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (polycarbonate-polyurethane-; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for **metal** and plastic protection)

IT Polyoxyalkylenes, uses

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (polyester-, block, coating vehicle; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for **metal** and plastic protection)

IT Polycarbodiimides

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (polyester-, block, hydrophilic component; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for **metal** and plastic protection)

IT Polyesters, uses

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (polyoxyalkylene-, block, coating vehicle; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for **metal** and plastic protection)

IT Polycarbodiimides

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (polyoxyalkylene-, block, hydrophilic component; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for **metal** and plastic protection)

IT Polycarbonates, uses

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (polyurea-polyurethane-; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for **metal** and plastic protection)

IT Polycarbonates, uses

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (polyurethane-, block, coating vehicle; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for **metal** and plastic protection)

IT Coating materials

(storage-stable; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for **metal** and plastic protection)

IT Fatty acids, uses

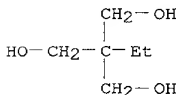
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP

- (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (tall-oil, alkyd resins with polyols, coating; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for **metal** and plastic protection)
- IT Alkyd resins  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for **metal** and plastic protection)
- IT Coating materials  
 (thermosetting; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for **metal** and plastic protection)
- IT Coating materials  
 (water-thinned; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for **metal** and plastic protection)
- IT 707-61-9, 3-Methyl-1-phenyl-2-phospholene-1-oxide  
 RL: CAT (Catalyst use); USES (Uses)  
 (carbodiimidization catalyst; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for **metal** and plastic protection)
- IT 77-99-6DP, Trimethylolpropane, alkyd resins 79-41-4DP, Methacrylic acid, polymers with acrylic and vinyl monomers and polyether-polysiloxanes 100-42-5DP, Styrene, polymers with acrylic and vinyl monomers and polyether-polysiloxanes 121-91-5DP, Isophthalic acid, alkyd resins 124-04-9DP, Adipic acid, alkyd resins 126-30-7DP, Neopentyl glycol, alkyd resins 140-88-5DP, Ethyl acrylate, polymers with acrylic and vinyl monomers and polyether-polysiloxanes 502-44-3DP, .epsilon.-Caprolactone, alkyd resins 552-30-7DP, Trimellitic anhydride, alkyd resins 818-61-1DP, 2-Hydroxyethyl acrylate, polymers with acrylic and vinyl monomers and polyether-polysiloxanes 868-77-9DP, 2-Hydroxyethyl methacrylate, polymers with acrylic and vinyl monomers and polyether-polysiloxanes 26915-97-9P 135991-20-7DP, Epol, alkyd resins 321181-75-3P, Ethyl acrylate-2-hydroxyethyl acrylate-2-hydroxyethyl methacrylate-methacrylic acid-styrene copolymer 321181-76-4P, Acrylamide-ethyl acrylate-2-hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate copolymer 321181-77-5P, Carbonic acid-1,6-hexanediol-dimethylolpropionic acid-hydrazine-isophorone diisocyanate block copolymer 321181-78-6P, Epikote EP-1256;ethyl acrylate;methacrylic acid-styrene graft copolymer  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (coating vehicle; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for **metal** and plastic protection)
- IT 106717-32-2, Power Top U-100  
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (electrodeposition coating; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for **metal** and plastic protection)
- IT 13463-67-7, Tipaque R-820, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (pigment; thermally-curable water-thinned coating compns. and

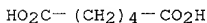
- multilayered coating films therefrom useful for **metal** and plastic protection)
- IT 53880-05-0DP, Isophorone diisocyanate polymer, reaction product polycarbonate diols and polyoxyethylene monolauryl ether 62948-28-1DP, 4,4'-Dicyclohexylmethane diisocyanate homopolymer, block copolymers with polycaprolactone diols, ethers with hydrophilic agents  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polycarbodiimide-contg.; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for **metal** and plastic protection)
- IT 321308-52-5DP, Dicyclohexylmethane diisocyanate-ethylene oxide-propylene oxide block copolymer, alkyl ether  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polycarbodiimide-contg. hydrophilic component; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for **metal** and plastic protection)
- IT 9003-07-0, Polypropylene 12597-69-2, Steel, miscellaneous  
RL: MSC (Miscellaneous)  
(substrate; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for **metal** and plastic protection)
- IT 80-04-6DP, Hydrogenated bisphenol A, alkyd resins 9002-92-0DP, Polyethylene glycol monolauryl ether, reaction product with polycarbonate-polycarbodiimides 24980-41-4DP, Polycaprolactone, diols, block copolymers with polycarbodiimide, modified with hydrophilic agents 25248-42-4DP, Polycaprolactone, diols, block copolymers with polycarbodiimide, modified with hydrophilic agents 111460-07-2DP, Sodium hydroxypropanesulfonate, reaction products with polycaprolactone-polycarbodiimides  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for **metal** and plastic protection)
- IT 552-30-7DP, Trimellitic anhydride, alkyd resin  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for **metal** and plastic protection)
- IT 132229-81-3P, Desmodur N 75-2-ethylhexyl acrylate-2-ethylhexyl methacrylate-2-hydroxyethyl methacrylate-methacrylic acid-styrene copolymer  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(top coating; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for **metal** and plastic protection)
- IT 77-58-7  
RL: CAT (Catalyst use); USES (Uses)  
(urethane formation catalyst; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for **metal** and plastic protection)
- IT 77-99-6DP, Trimethylolpropane, alkyd resins 124-04-9DP,

Adipic acid, alkyd resins **126-30-7DP**, Neopentyl glycol, alkyd resins  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (coating vehicle; thermally-curable water-thinned coating compns. and multilayered coating films therefrom useful for **metal** and plastic protection)

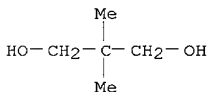
RN 77-99-6 HCAPLUS  
 CN 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)- (8CI, 9CI) (CA INDEX NAME)



RN 124-04-9 HCAPLUS  
 CN Hexanedioic acid (9CI) (CA INDEX NAME)



RN 126-30-7 HCAPLUS  
 CN 1,3-Propanediol, 2,2-dimethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L56 ANSWER 5 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 2001:38276 HCAPLUS  
 DN 134:102328  
 TI Laminated **metallic** coatings with good appearance and water resistance, and their manufacture  
 IN Masuda, Kazuaki; Harakawa, Takeshi; Kuwashima, Teruaki; Takeuchi, Yutaka  
 PA Nippon Paint Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 12 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM B05D001-36  
 ICS B05D005-06; C09D005-00; C09D005-38; C09D179-00  
 CC 42-10 (Coatings, Inks, and Related Products)  
 FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001009357	A2	20010116	JP 2000-49807	20000225
	GB 2351680	A1	20010110	GB 2000-10276	20000427
	GB 2351680	B2	20030723		
	US 2002086162	A1	20020704	US 2000-562075	20000501

US 6428856 B2 20020806  
PRAI JP 1999-124008 A 19990430  
JP 2000-49807 A 20000225

AB The coating, useful for automobiles, are manufd. by sequential application of aq. intermediate coatings, aq. **metallic** base coatings, and clear coatings, wherein the intermediate and/or the **metallic** base coatings contain polycarbodiimides and carboxy group-contg. aq. polymers. An intermediate coating **compn.** contained aq. dispersion contg. a reaction product of poly(oxyethylene)-mono-2-ethylhexyl ether with 4,4'-MDI-polypropylene glycol block copolymer (A) 177.7, aq. dispersion contg. carboxyl group-contg. acrylic polymer dimethylaminoethanol salt 285, and carboxyl group-contg. acrylic polymer HN(C<sub>2</sub>H<sub>5</sub>OH)<sub>2</sub> salt varnish (B) 76 parts. A steel sheet was electrocoated with Power Top U 50, successively coated with the intermediate coating **compn.**, a **metallic** coating **compn.** contg. A 40, B 119, and Alpaste 7160N (Al pigment paste) 15, Cymel 303 (methoxylated methylol melamine) 30 parts, a clear coating **compn.** contg. acrylic polymer varnish 100, U-Van 20SE 60 (butylated melamine resin) 38, and acrylic polyester particle 2.2 parts, and cured.

ST **metallic** coating multilayer polycarbodiimide water resistance; polyoxyalkylene polycarbodiimide acrylic **metallic** coating multilayer

IT Aminoplasts  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(acrylic, **metallic** coating; manuf. of laminated **metallic** coatings with good appearance and water resistance)

IT Polyesters, uses  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(acrylic-aminoplast-, clear coating; manuf. of laminated **metallic** coatings with good appearance and water resistance)

IT Aminoplasts  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(acrylic-polyester-, clear coating; manuf. of laminated **metallic** coatings with good appearance and water resistance)

IT Fatty acids, uses  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(coco, polymers with polyols, dicarboxylic acids, CO<sub>2</sub>H-contg. polypropylene, and modified polycarbodiimide; manuf. of laminated **metallic** coatings with good appearance and water resistance)

IT Automobiles  
(manuf. of laminated **metallic** coatings with good appearance and water resistance for)

IT Coating materials  
(multilayer; manuf. of laminated **metallic** coatings with good appearance and water resistance)

IT Polyoxyalkylenes, uses  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polycarbodiimide-polyurethane-, acrylic; manuf. of laminated **metallic** coatings with good appearance and water resistance)

IT Polyisocyanurates  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polyester-, acrylic, clear coating; manuf. of laminated

- metallic** coatings with good appearance and water resistance)
- IT Polyesters, uses  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyisocyanurate-, acrylic, clear coating; manuf. of laminated **metallic** coatings with good appearance and water resistance)
- IT Aminoplasts  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polymers with polyesters and polyacrylates, clear coating; manuf. of laminated **metallic** coatings with good appearance and water resistance)
- IT Polyurethanes, uses  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyoxyalkylene-polycarbodiimide-, acrylic; manuf. of laminated **metallic** coatings with good appearance and water resistance)
- IT Polycarbodiimides  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyoxyalkylene-polyurethane-, acrylic; manuf. of laminated **metallic** coatings with good appearance and water resistance)
- IT 9003-08-1DP, U-Van 20SE 60, polymers with polyesters and polyacrylates 26761-45-5DP, Cardura E 10, reaction products with polyesters, polymers with polyacrylates and melamine resins 36179-96-1DP, Butyl acrylate-2-hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate-styrene copolymer, polymers with polyesters, polyacrylates, and melamine resins 80293-01-2DP, Azelaic acid-bishydroxyethyltaurine-neopentyl glycol-phthalic anhydride copolymer, reaction products with glycidyl versatate, polymers with polyacrylates and melamine resins 113812-59-2DP, Butyl acrylate-ethylene glycol dimethacrylate-2-hydroxyethyl methacrylate-methyl methacrylate-styrene copolymer, polymers with polyesters, polyacrylates, and melamine resins 320397-74-8P, Butyl acrylate-2-hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate-styrene-Sumidur 3500 copolymer  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (clear coating; manuf. of laminated **metallic** coatings with good appearance and water resistance)
- IT **77-99-6DP**, Trimethylolpropane, polymers with diols and dicarboxylic acids, CO2H-contg. polypropylene, and modified polycarbodiimides 121-91-5DP, Isophthalic acid, polymers with diols and dicarboxylic acids, CO2H-contg. polypropylene, and modified polycarbodiimides **124-04-9DP**, Adipic acid, polymers with diols and dicarboxylic acids, CO2H-contg. polypropylene, and modified polycarbodiimides **126-30-7DP**, Neopentyl glycol, polymers with diols and dicarboxylic acids, CO2H-contg. polypropylene, and modified polycarbodiimides 502-44-3DP, .epsilon.-Caprolactone, polymers with diols and dicarboxylic acids, CO2H-contg. polypropylene, and modified polycarbodiimides 552-30-7DP, Trimellitic anhydride, polymers with diols and dicarboxylic acids, CO2H-contg. polypropylene, and modified polycarbodiimides 26468-86-ODP, Polyethylene glycol mono-2-ethylhexyl ether, reaction products with MDI-polypropylene glycol copolymer, polymers with CO2H-contg. polymers 135991-20-7DP, Epol (polyisoprene), polymers with diols and dicarboxylic acids, CO2H-contg. polypropylene, and modified polycarbodiimides 201139-72-2DP, 4,4'-MDI-polypropylene glycol block copolymer, reaction products with polyethylene glycol mono-2-ethylhexyl ether, polymers with CO2H-contg. polymers 320385-83-9DP, Adeka Reasoap



NE 20-Aqualon HS 10-ethyl acrylate-2-hydroxyethyl methacrylate-methacrylic acid-methyl acrylate copolymer dimethylaminoethanol salt, polymers with modified polycarbodiimides and CO2H-contg. acrylic polymers 320385-85-1DP, Acrylamide-butyl acrylate-2-hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate-styrene copolymer diethanolamine salt, polymers with modified polycarbodiimides and CO2H-contg. acrylic polymers 320395-34-4DP, Hardlen M 128P, polymers with CO2H-contg. polyesters and modified polycarbodiimides  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(manuf. of laminated **metallic** coatings with good appearance and water resistance)

IT 200815-42-5P, Acrylamide-butyl acrylate-Cymel 303-2-hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate-styrene copolymer  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

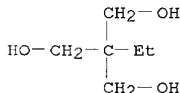
(**metallic** coating; manuf. of laminated **metallic** coatings with good appearance and water resistance)

IT 77-99-6DP, Trimethylolpropane, polymers with diols and dicarboxylic acids, CO2H-contg. polypropylene, and modified polycarbodiimides 124-04-9DP, Adipic acid, polymers with diols and dicarboxylic acids, CO2H-contg. polypropylene, and modified polycarbodiimides 126-30-7DP, Neopentyl glycol, polymers with diols and dicarboxylic acids, CO2H-contg. polypropylene, and modified polycarbodiimides  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(manuf. of laminated **metallic** coatings with good appearance and water resistance)

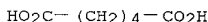
RN 77-99-6 HCAPLUS

CN 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)- (8CI, 9CI) (CA INDEX NAME)



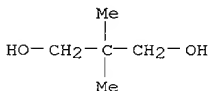
RN 124-04-9 HCAPLUS

CN Hexanedioic acid (9CI) (CA INDEX NAME)



RN 126-30-7 HCAPLUS

CN 1,3-Propanediol, 2,2-dimethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L56 ANSWER 6 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2000:316974 HCAPLUS

DN 132:323088

TI Manufacture of internally crosslinked nonaqueous resin dispersions, high-solid coating **compositions** based on them, and coating process

IN Azuma, Ichiro; Miokawa, Masasumi; Komasaki, Shigeru

PA Dainippon Ink and Chemicals, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08F002-08

ICS B05D007-24; C08F002-44; C09D005-00; C09D155-00; C09D157-00; C09D161-20; C09D167-02

CC 42-10 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000136204	A2	20000516	JP 1998-310075	19981030
PRAI	JP 1998-310075		19981030		

AB Mixts. of vinyl monomers and crosslinking monomers are copolymd. in org. solvents in which the monomers dissolve but product polymers do not dissolve in the presence of polyester-based dispersion stabilizers which dissolve in the solvents to give crosslinked particle dispersions. The coating compns. comprise org. solvent-sol. OH-contg. polyesters, the dispersions, and org. solvent-sol. amino resins. Two-coat-1-bake or 3-coat-1-bake process using the compns. as base coats, useful for **metallic** coating of automobile bodies, is claimed. Thus, isophthalic acid 250, adipic acid 220, hexahydrophthalic anhydride 110, neopentyl glycol 280, trimethylolpropane 160, and Cardura E 100 parts were polymd., dild. with LAWS and BuOH, and esterified with 3 parts glycidyl methacrylate to give a 65.8% dispersion stabilizer, 385 parts of which, xylene, heptane, an BuOH were added to a reactor in which Me methacrylate 100, Et acrylate 117, Bu acrylate 20, 2-hydroxyethyl acrylate 40, acrylonitrile 35, ethylene glycol dimethacrylate 18, and acrylic acid 10 parts were polymd. to give a 50.1% nonaq. resin dispersion.

ST crosslinked acrylic polymer nonaq dispersion coating; polyester dispersion stabilizer acrylic polymer crosslinked; automobile body **metallic** coating base coat

IT Fatty acids, uses

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(C9-11-branched, glycidyl esters, polyesters; manuf. of nonaq.

dispersion of crosslinked polymers for high-solid base coats)

IT Polyesters, uses

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(acrylic; manuf. of nonaq. dispersion of crosslinked polymers for high-solid base coats)

IT Automobiles

(bodies; manuf. of nonaq. dispersion of crosslinked polymers for high-solid base coats)

IT Coating materials

(dispersion, nonaq.; manuf. of nonaq. dispersion of crosslinked polymers for high-solid base coats)

IT Aminooplasts

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polymers with polyesters and acrylic polymers; manuf. of nonaq. dispersion of crosslinked polymers for high-solid base coats)

IT Coating process

(two-layer-one-bake; manuf. of nonaq. dispersion of crosslinked polymers for high-solid base coats)

IT 77-99-6DP, Trimethylolpropane, polyesters 79-10-7DP, Acrylic acid, polymers with acrylic compds. and polyester methacrylate 80-62-6DP, Methyl methacrylate, polymers with acrylic compds. and polyester methacrylate 85-42-7DP, Hexahydrophthalic anhydride, polyesters 97-90-5DP, Ethylene glycol dimethacrylate, polymers with acrylic compds. and polyester methacrylate 106-91-2DP, Glycidyl methacrylate, reaction products with polyesters, polymers with acrylic compds. 107-13-1DP, Acrylonitrile, polymers with acrylic compds. and polyester methacrylate 121-91-5DP, Isophthalic acid, polyesters 124-04-9DP, Adipic acid, polyesters 126-30-7DP, Neopentyl glycol, polyesters 140-88-5DP, Ethyl acrylate, polymers with acrylic compds. and polyester methacrylate 141-32-2DP, Butyl acrylate, polymers with acrylic compds. and polyester methacrylate 629-11-8DP, 1,6-Hexanediol, polyesters 818-61-1DP, 2-Hydroxyethyl acrylate, polymers with acrylic compds. and polyester methacrylate 9003-08-1DP, Super Beckamine L 117-60, polymers with polyesters and acrylic polymers

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(manuf. of nonaq. dispersion of crosslinked polymers for high-solid base coats)

IT 77-99-6DP, Trimethylolpropane, polyesters 124-04-9DP,

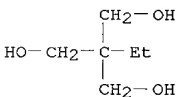
Adipic acid, polyesters 126-30-7DP, Neopentyl glycol, polyesters

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(manuf. of nonaq. dispersion of crosslinked polymers for high-solid base coats)

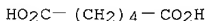
RN 77-99-6 HCAPLUS

CN 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)- (8CI, 9CI) (CA INDEX NAME)



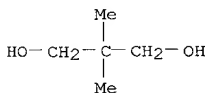
RN 124-04-9 HCAPLUS

CN Hexanedioic acid (9CI) (CA INDEX NAME)



RN 126-30-7 HCAPLUS

CN 1,3-Propanediol, 2,2-dimethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L56 ANSWER 7 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1998:414785 HCAPLUS  
 DN 129:110174  
 TI Water-based polyester coating **compositions** formed on  
**metals** as an intermediate layer to an automotive finish  
 IN Nishi, Tadahiko; Takagi, Takeshi; Okude, Yoshitaka  
 PA Nippon Paint Co., Ltd., Japan  
 SO Eur. Pat. Appl., 16 pp.  
 CODEN: EPXXDW

DT Patent  
 LA English  
 IC ICM C09D167-00  
 CC 42-7 (**Coatings**, Inks, and Related Products)  
 Section cross-reference(s): 55

FAN.CNT 1

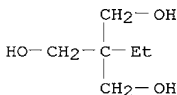
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 849341	A2	19980624	EP 1997-122562	19971219
	EP 849341	A3	19980902		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 10176136	A2	19980630	JP 1996-354881	19961219
	CA 2225085	AA	19980619	CA 1997-2225085	19971217
	US 5919856	A	19990706	US 1997-993410	19971218
PRAI	JP 1996-354881		19961219		
AB	A water-based thermosetting coating <b>compn.</b> comprises a polyester resin having pendant carboxyl groups and a crosslinking agent, both dispersed in an aq. medium contg. a neutralizing base. The polyester resin is formed from 1-40% polyalkadienediol or a hydrogenated product thereof and 2-50% 2,2-bis(hydroxymethyl)alkanoic acid. Thus, an aq. <b>compn.</b> contg. the polyester (no.-av. mol. wt. 2770; OH no. 150, acid no. 50) from coconut oil, trimethylolpropane, 1,4-cyclohexanedicarboxylic acid, adipic acid, dimethylolbutanoic acid, Epol, and caprolactone, hexamethoxymelamine crosslinker, pigment, and p-toluenesulfonic acid gave a coating <b>compn.</b> having good water resistance (40.degree. for 10 days), crosshatch tape adhesion 100/100, good chip resistance, and pinhole free limit 60 .mu.m.				
ST	waterborne thermosetting polyester coating; dimethylolbutanoic acid polyester coating; melamine curable polyester coating; Epol polyester coating water dispersed; cyclohexanedicarboxylic acid polyester coating; caprolactone polyester coating water dispersed; chip water resistance polyester coating				
IT	Coating materials (chip-resistant, water-resistant; water-based thermosetting polyester coating <b>comps.</b> formed on <b>metals</b> as an intermediate layer to an automotive finish)				
IT	Coconut oil RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP				

- (Preparation); USES (Uses)  
(reaction product with tricarboxylic acid-contg. polyester-polyalkylenediol, dimethylethanolamine salt; water-based thermosetting polyester coating compns. formed on **metals** as an intermediate layer to an automotive finish)
- IT Coating materials  
(water-resistant, chip-resistant; water-based thermosetting polyester coating compns. formed on **metals** as an intermediate layer to an automotive finish)
- IT 83014-18-0, Acrylamide-butyl acrylate-2-hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate-styrene copolymer  
RL: TEM (Technical or engineered material use); USES (Uses)  
(base coat binder; water-based thermosetting polyester coating compns. formed on **metals** as an intermediate layer to an automotive finish)
- IT 121934-24-5, Almatex NT-U 448; formaldehyde-melamine copolymer  
RL: TEM (Technical or engineered material use); USES (Uses)  
(base coat; water-based thermosetting polyester coating compns. formed on **metals** as an intermediate layer to an automotive finish)
- IT 183804-28-6, ACR 461-Dianal HR 554-formaldehyde-melamine copolymer  
RL: TEM (Technical or engineered material use); USES (Uses)  
(clear coat; water-based thermosetting polyester coating compns. formed on **metals** as an intermediate layer to an automotive finish)
- IT 12597-69-2, Steel, miscellaneous  
RL: MSC (Miscellaneous)  
(phosphate treated; water-based thermosetting polyester coating compns. formed on **metals** as an intermediate layer to an automotive finish)
- IT 77-99-6DP, Trimethylolpropane, polyester derivs., dimethylethanolamine salt 85-42-7DP, Hexahydrophthalic anhydride, polyester derivs., dimethylethanolamine salt 121-91-5DP, Isophthalic acid, polyester derivs., dimethylethanolamine salt 124-04-9DP, Adipic acid, polyester derivs., dimethylethanolamine salt 126-30-7DP, Neopentyl glycol, polyester derivs., dimethylethanolamine salt 502-44-3DP, .epsilon.-Caprolactone, polyester derivs., dimethylethanolamine salt 552-30-7DP, Trimellitic anhydride, polyester derivs., dimethylethanolamine salt 1076-97-7DP, 1,4-Cyclohexanedicarboxylic acid, polyester derivs., dimethylethanolamine salt 4767-03-7DP, Dimethylolpropionic acid, polyester derivs., dimethylethanolamine salt 56743-27-2DP, polyester derivs., dimethylethanolamine salt 87913-10-8DP, Polytail H, polyester derivs., dimethylethanolamine salt 88507-04-4DP, Polytail HA, polyester derivs., dimethylethanolamine salt 135991-20-7DP, Epol (polyisoprene), polyester derivs., dimethylethanolamine salt 151438-95-8DP, PIP, polyester derivs., dimethylethanolamine salt  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(water-based thermosetting polyester coating compns. formed on **metals** as an intermediate layer to an automotive finish)
- IT 77-99-6DP, Trimethylolpropane, polyester derivs., dimethylethanolamine salt 124-04-9DP, Adipic acid, polyester derivs., dimethylethanolamine salt 126-30-7DP, Neopentyl glycol, polyester derivs., dimethylethanolamine salt  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(water-based thermosetting polyester coating compns. formed on

metals as an intermediate layer to an automotive finish)

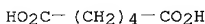
RN 77-99-6 HCAPLUS

CN 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)- (8CI, 9CI) (CA INDEX NAME)



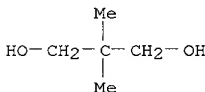
RN 124-04-9 HCAPLUS

CN Hexanedioic acid (9CI) (CA INDEX NAME)



RN 126-30-7 HCAPLUS

CN 1,3-Propanediol, 2,2-dimethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L56 ANSWER 8 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1998:91143 HCAPLUS

Correction of: 1996:655493

DN 128:103400

Correction of: 125:278599

TI Correlation between network mechanical properties and physical properties in polyester-urethane coatings

AU Scanlan, James C.; Webster, Dean C.; Crain, Allen L.

CS Res. Lab., Eastman Chemical Co., Kingsport, TN, 37662-5150, USA

SO ACS Symposium Series (1996), 648 (Film Formation in Waterborne Coatings), 222-234

CODEN: ACSMC8; ISSN: 0097-6156

PB American Chemical Society

DT Journal

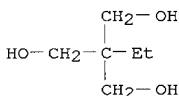
LA English

CC 42-4 (Coatings, Inks, and Related Products)

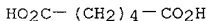
AB The prepn. and functionality and mol.-wt. evaluation of polyester polyols from diacids were studied. The polyesters were formulated into clear coatings and cured with a polyfunctional isocyanate. Dynamic mech. and thermal anal. was used to characterize the network structure. The crosslink d. (XLD), calcd. from the measured rubber modulus, compares favorably to the value predicted by Miller-Macosko theory. Tg is modeled in terms of **compn.** and crosslink d. to  $\pm 0.5$  degree. Hardness, as reflected by the room temp. modulus, is a functions of both Tg and XLD. The combination of hardness and flexibility **can** be optimized by combining low XLD with a high Tg-contributing monomer.

ST polyester polyol prepn; urethane polyester coating mech thermal

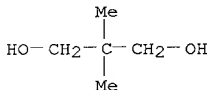
- IT Chemical chains  
Coating materials  
Crosslink density  
Glass transition temperature  
(effects of crosslink d. and Tg on mech. and thermal properties of polyester-urethane coatings)
- IT Polyurethanes, uses  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(polyester-, effects of crosslink d. and Tg on mech. and thermal properties of polyester-urethane coatings)
- IT **77-99-6DP**, Trimethylolpropane, polyurethanes 121-91-5DP, Isophthalic acid, polyurethanes, uses **124-04-9DP**, Adipic acid, polyurethanes, uses **126-30-7DP**, Neopentyl glycol, polyurethanes 1076-97-7DP, 1,4-Cyclohexanedicarboxylic acid, polyurethanes 96510-63-3DP, Desmodur N3390, polyurethanes  
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(effects of crosslink d. and glass temp. on mech. and thermal properties of polyester polyurethane coatings)
- IT **77-99-6DP**, Trimethylolpropane, polyurethanes **124-04-9DP**, Adipic acid, polyurethanes, uses **126-30-7DP**, Neopentyl glycol, polyurethanes  
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(effects of crosslink d. and glass temp. on mech. and thermal properties of polyester polyurethane coatings)
- RN 77-99-6 HCAPLUS  
CN 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)- (8CI, 9CI) (CA INDEX NAME)



- RN 124-04-9 HCAPLUS  
CN Hexanedioic acid (9CI) (CA INDEX NAME)

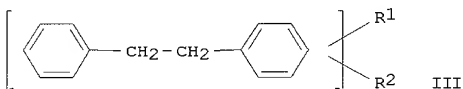
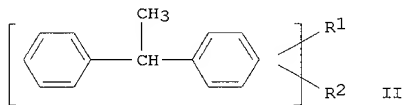
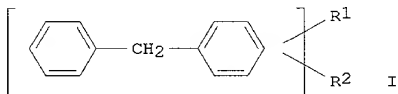


- RN 126-30-7 HCAPLUS  
CN 1,3-Propanediol, 2,2-dimethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



AN 1997:442880 HCAPLUS  
 DN 127:96702  
 TI High boiling point aromatic hydrocarbon solvents and their ink compositions for printing on metals  
 IN Hoshino, Hiroyuki; Sugisawa, Kunio; Togami, Yasuo  
 PA Nippon Petrochemicals Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C07C015-18  
 ICS C07C015-16; C09D011-02  
 CC 42-12 (Coatings, Inks, and Related Products)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09157189	A2	19970617	JP 1995-346970	19951214
PRAI	JP 1995-346970		19951214		
OS	MARPAT 127:96702				
GI					



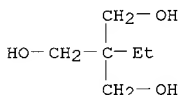
AB The solvents for the inks comprise dialkyldiarylalkanes I, II, and/or III (R1-R2 = C4 alkyl). Thus, a solvent comprised di-sec-butylidiphenylmethane 53, di-sec-butylidiphenylethane(1,1) 27, and di-sec-butylidiphenylethane(1,2) 20%. A liq. alkyd resin with acid value 9.0 was obtained by transesterification of soybean fatty acid 200, trimethylolpropane 100, neopentyl glycol 160, adipic acid 130, and isophthalic acid 175 parts. An ink contg. the resin and the solvent was printed on Al can by dry offset process, top-coated with a water-based acrylic amino-type varnish, and baked at 200.degree. to give a product without misting.

ST arom hydrocarbon solvent ink metal printing; dialkyldiarylalkane solvent ink metal printing; alkylarylalkane solvent ink metal printing

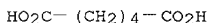
IT Inks  
 (dialkyldiarylalkanes as high b.p. solvents and their ink compns. for



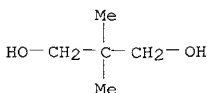
- printing on **metals**)
- IT Alkanes, uses  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (dialkyldiarylalkanes as high b.p. solvents and their ink compns. for printing on **metals**)
- IT Fatty acids, uses  
 RL: PNU (Preparation, unclassified); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (soya, alkyd resins, vehicles; dialkyldiarylalkanes as high b.p. solvents and their ink compns. for printing on **metals**)
- IT 41237-26-7 191683-46-2 191683-47-3  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (dialkyldiarylalkanes as high b.p. solvents and their ink compns. for printing on **metals**)
- IT 77-99-6DP, reaction products with soybean fatty acids, neopentyl glycol, adipic acid, and isophthalic acid 121-91-5DP, 1,3-Benzenedicarboxylic acid, reaction products with soybean fatty acids, trimethylolpropane, neopentyl glycol, and adipic acid, uses  
 124-04-9DP, Adipic acid, reaction products with soybean fatty acids, trimethylolpropane, neopentyl glycol, and isophthalic acid  
 126-30-7DP, reaction products with soybean fatty acids, trimethylolpropane, adipic acid, and isophthalic acid 25950-34-9P, Adipic acid-isophthalic acid-neopentyl glycol-trimethylolpropane copolymer  
 RL: PNU (Preparation, unclassified); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (vehicles; dialkyldiarylalkanes as high b.p. solvents and their ink compns. for printing on **metals**)
- IT 77-99-6DP, reaction products with soybean fatty acids, neopentyl glycol, adipic acid, and isophthalic acid 124-04-9DP, Adipic acid, reaction products with soybean fatty acids, trimethylolpropane, neopentyl glycol, and isophthalic acid 126-30-7DP, reaction products with soybean fatty acids, trimethylolpropane, adipic acid, and isophthalic acid  
 RL: PNU (Preparation, unclassified); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (vehicles; dialkyldiarylalkanes as high b.p. solvents and their ink compns. for printing on **metals**)
- RN 77-99-6 HCAPLUS  
 CN 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)- (8CI, 9CI) (CA INDEX NAME)



- RN 124-04-9 HCAPLUS  
 CN Hexanedioic acid (9CI) (CA INDEX NAME)



- RN 126-30-7 HCAPLUS  
 CN 1,3-Propanediol, 2,2-dimethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L56 ANSWER 10 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1997:120880 HCAPLUS

DN 126:132712

TI Thermosetting water-thinned base coating **compositions** with good moisture resistance for automobiles, and their application

IN Nakae, Yasuhiko; Uchiyama, Toshihiko; Terada, Takeshi; Okude, Yoshitaka

PA Nippon Paint Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09D167-02

ICS C09D167-02; B05D001-36; C09D161-28

CC 42-7 (**Coatings**, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08311396	A2	19961126	JP 1995-145246	19950519
PRAI	JP 1995-145246		19950519		

AB Mixts. of (A) polyesters (acid value 5-50, OH value 20-250) contg. 1-30% OH-terminated polyalkadienes (av. d.p. 5-50) and/or hydrogenated polyalkadienes, (B) crosslinking agents, and (C) pigments are dissolved or dispersed in an aq. medium contg. sufficient bases to neutralize .gtoreq.50% of the CO<sub>2</sub>H groups of A and including 5-20 equiv.% polybasic **metal** hydroxides. Substrates are base-coated with the compns., top-coated wet-on-wet with transparent compns., and cured to form multilayer coating films. Thus, coconut oil 155, trimethylolpropane 248, isophthalic acid 267, adipic acid 59, neopentyl glycol 33, Epol (av. d.p. 26) 41, trimellitic anhydride 40, and .epsilon-caprolactone 77 parts were polymd. and mixed with 75 parts Solvesso 150 and 75 parts Bu Cellosolve to obtain a varnish with OH value 137, acid value 37, no.-av. mol. wt. 2850, and H<sub>2</sub>O tolerance 0.8. A blend of the varnish 100, dimethylethanolamine 3.90, Ca(OH)<sub>2</sub> 0.41, and H<sub>2</sub>O 192.1 parts was mixed with Al paste 60-600 17.1, Cymel 212 33.3, and p-toluenesulfonic acid 0.5 part, applied to a Sn plate, and baked at 150.degree. for 30 min to show a good appearance.

ST polyalkadienediol polyester base coating automobile; water thinned polyester polyalkadienediol coating; multilayer coating automobile moisture resistance

IT Fatty acids, uses

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(coco, esters with polyalkadienediol-based polyesters, alk. earth **metal** and amine salts; thermosetting water-thinned base coating compns. with good moisture resistance for automobiles)

IT Aminoplasts

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(crosslinkers; thermosetting water-thinned base coating compns. contg.

- polyalkadienediol-based polyester salts with good moisture resistance for automobiles)
- IT Butadiene rubber, uses  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (hydroxy-terminated, Poly bd-R 45HT, polyesters, coco fatty acid esters, alk. earth **metal** and amine salts; thermosetting water-thinned base coating compns. contg. polyalkadienediol-based polyester salts with good moisture resistance for automobiles)
- IT Automobiles  
 (thermosetting water-thinned base coating compns. contg. polyalkadienediol-based polyester salts with good moisture resistance for automobiles)
- IT Alkyd resins  
 Polyesters, uses  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (thermosetting water-thinned base coating compns. contg. polyalkadienediol-based polyester salts with good moisture resistance for automobiles)
- IT Coating materials  
 (water-thinned; thermosetting water-thinned base coating compns. contg. polyalkadienediol-based polyester salts with good moisture resistance for automobiles)
- IT 9003-17-2P  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (butadiene rubber, hydroxy-terminated, Poly bd-R 45HT, polyesters, coco fatty acid esters, alk. earth **metal** and amine salts; thermosetting water-thinned base coating compns. contg. polyalkadienediol-based polyester salts with good moisture resistance for automobiles)
- IT 9003-08-1, Melamine resin 173358-75-3, Cymel 212  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (crosslinkers; thermosetting water-thinned base coating compns. contg. polyalkadienediol-based polyester salts with good moisture resistance for automobiles)
- IT 7429-90-5, **Aluminum**, uses  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (pigments; thermosetting water-thinned base coating compns. contg. polyalkadienediol-based polyester salts with good moisture resistance for automobiles)
- IT 17194-00-2DP, Barium hydroxide, salts with polyalkadienediol-based polyesters  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (thermosetting water-thinned base coating compns. contg. polyalkadienediol-based polyester salts for automobiles)
- IT 77-99-6DP, polymers with hydroxy-terminated butadiene rubber and polycarboxylic acids and polyols, coco fatty acid esters, alk. earth **metal** and amine salts 108-01-0DP, salts with polyalkadienediol-based polyesters 121-44-8DP, salts with

polyalkadienediol-based polyesters 121-91-5DP, 1,3-Benzenedicarboxylic acid, polymers with hydroxy-terminated butadiene rubber and polycarboxylic acids and polyols, coco fatty acid esters, alk. earth **metal** and amine salts, uses 124-04-9DP, Hexanedioic acid, polymers with hydroxy-terminated butadiene rubber and polycarboxylic acids and polyols, coco fatty acid esters, alk. earth **metal** and amine salts, uses 126-30-7DP, polymers with hydroxy-terminated butadiene rubber and polycarboxylic acids and polyols, coco fatty acid esters, alk. earth **metal** and amine salts 502-44-3DP, 2-Oxepanone, polymers with hydroxy-terminated butadiene rubber and polycarboxylic acids and polyols, coco fatty acid esters, alk. earth **metal** and amine salts 552-30-7DP, polymers with hydroxy-terminated butadiene rubber and polycarboxylic acids and polyols, coco fatty acid esters, alk. earth **metal** and amine salts 1305-62-0DP, Calcium hydroxide (Ca(OH)<sub>2</sub>), salts with polyalkadienediol-based polyesters, uses 1309-42-8DP, Magnesium hydroxide, salts with polyalkadienediol-based polyesters 186343-52-2DP, coco fatty acid esters, alk. earth **metal** and amine salts 186343-53-3DP, coco fatty acid esters, alk. earth **metal** and amine salts 186353-77-5DP, coco fatty acid esters, alk. earth **metal** and amine salts

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(thermosetting water-thinned base coating compns. contg.

polyalkadienediol-based polyester salts with good moisture resistance for automobiles)

IT 77-99-6DP, polymers with hydroxy-terminated butadiene rubber and polycarboxylic acids and polyols, coco fatty acid esters, alk. earth **metal** and amine salts 124-04-9DP, Hexanedioic acid, polymers with hydroxy-terminated butadiene rubber and polycarboxylic acids and polyols, coco fatty acid esters, alk. earth **metal** and amine salts, uses 126-30-7DP, polymers with hydroxy-terminated butadiene rubber and polycarboxylic acids and polyols, coco fatty acid esters, alk. earth **metal** and amine salts

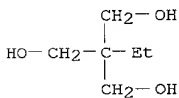
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(thermosetting water-thinned base coating compns. contg.

polyalkadienediol-based polyester salts with good moisture resistance for automobiles)

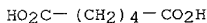
RN 77-99-6 HCAPLUS

CN 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)- (8CI, 9CI) (CA INDEX NAME)

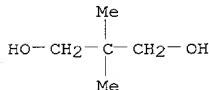


RN 124-04-9 HCAPLUS

CN Hexanedioic acid (9CI) (CA INDEX NAME)



RN 126-30-7 HCAPLUS  
 CN 1,3-Propanediol, 2,2-dimethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L56 ANSWER 11 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1996:387774 HCAPLUS

DN 125:36057

TI Ink **compositions** for printing on **metals** with improved compatibility for overprint varnishes

IN Hashimoto, Yasuhiro; Yoshizawa, Hiroyuki; Taniguchi, Hayayuki; Okamoto, Katsutoshi

PA Sakata Inks, Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09D011-02

CC 42-12 (**Coatings**, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08060061	A2	19960305	JP 1994-202451	19940826
PRAI	JP 1994-202451		19940826		
OS	MARPAT 125:36057				
AB	The compns. comprise colorants, binder polymers, and org. solvents contg. 1-50% (on <b>compn.</b> ) .gtoreq.1 ethoxylated and/or propoxylated YmXZn [X = (m + n)-valent residue of 3- to 12-membered satd. hydrocarbon ring, cyclohexene, or cyclohexadiene; Y = OH, hydroxyalkyl; Z = alkyl; m = 1-2; n = 0-3] with adduct no. 0-40. Soybean-oil fatty acid 200, trimethylolpropane 100, neopentyl glycol 160, adipic acid 130, and isophthalic acid 175 parts were esterified to give an alkyd resin, 80 parts of which was mixed with 20 parts ethoxylated cyclohexanol (I) to give a vehicle. The vehicle 28, TiO2 50, Cymel 303 (melamine resin) 9, dibutylethanolamine 3, and I 10 parts were mixed to give a <b>compn</b> . (I content 15.6%) showing good misting resistance and fluidity and good compatibility for overprint varnishes.				
ST	ethoxylated cyclohexanol solvent ink <b>metal</b> printing; alkoxyated cyclohexanol solvent ink <b>metal</b> printing; alkyd resin binder <b>metal</b> printing ink; polyester binder <b>metal</b> printing ink; cyclic alc alkoxyated solvent printing ink				
IT	Solvents (alkoxyated cyclic alcs.; for ink compns. contg. alkyd resin binders for printing on <b>metals</b> with improved compatibility for overprint varnishes)				
IT	Alkyd resins Polyesters, uses RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (binders; for ink compns. for printing on <b>metals</b> with improved compatibility for overprint varnishes)				

IT Inks  
(polyester binders contg. alkoxyated cyclic alc. solvents for printing on **metals** with improved compatibility for overprint varnishes)

IT Alcohols, uses  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(cyclic, alkoxyated, solvents; for ink compns. contg. alkyd resin binders for printing on **metals** with improved compatibility for overprint varnishes)

IT Fatty acids, uses  
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(soya, polymers, alkyd resins, binders; for ink compns. for printing on **metals** with improved compatibility for overprint varnishes)

IT 72688-48-3P  
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(binder; for ink compns. for printing on **metals** with improved compatibility for overprint varnishes)

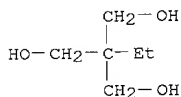
IT 77-99-6DP, polymers with soybean-oil fatty acids, neopentyl glycol, adipic acid, isophthalic acid and Cymel 303 121-91-5DP, 1,3-Benzenedicarboxylic acid, polymers with soybean-oil fatty acids, trimethylolpropane, neopentyl glycol, adipic acid and Cymel 303 124-04-9DP, Hexanedioic acid, polymers with soybean-oil fatty acids, trimethylolpropane, neopentyl glycol, isophthalic acid and Cymel 303 126-30-7DP, Neopentyl glycol, polymers with soybean-oil fatty acids, trimethylolpropane, adipic acid, isophthalic acid and Cymel 303 9003-08-1DP, Cymel 303, polymers with soybean-oil fatty acids, trimethylolpropane, neopentyl glycol, adipic acid and isophthalic acid  
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(binders; for ink compns. for printing on **metals** with improved compatibility for overprint varnishes)

IT 32128-53-3 81545-51-9, Polypropylene glycol monocyclohexyl ether 106707-12-4 178120-25-7 178120-26-8  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(solvent; for ink compns. contg. alkyd resin binders for printing on **metals** with improved compatibility for overprint varnishes)

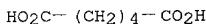
IT 77-99-6DP, polymers with soybean-oil fatty acids, neopentyl glycol, adipic acid, isophthalic acid and Cymel 303 124-04-9DP, Hexanedioic acid, polymers with soybean-oil fatty acids, trimethylolpropane, neopentyl glycol, isophthalic acid and Cymel 303 126-30-7DP, Neopentyl glycol, polymers with soybean-oil fatty acids, trimethylolpropane, adipic acid, isophthalic acid and Cymel 303  
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(binders; for ink compns. for printing on **metals** with improved compatibility for overprint varnishes)

RN 77-99-6 HCAPLUS

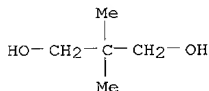
CN 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)- (8CI, 9CI) (CA INDEX NAME)



RN 124-04-9 HCAPLUS  
CN Hexanedioic acid (9CI) (CA INDEX NAME)



RN 126-30-7 HCAPLUS  
CN 1,3-Propanediol, 2,2-dimethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L56 ANSWER 12 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN  
AN 1995:689894 HCAPLUS  
DN 123:59000  
TI Protective and/or decorative coating **compositions** containing  
hydroxylated polyesters for use in multilayer coatings  
IN Hoffmann, Peter; Bruennemann, Michael  
PA Basf Lacke + Farben AG, Germany  
SO Ger. Offen., 15 pp.  
CODEN: GWXXBX  
DT Patent  
LA German  
IC ICM C09D167-00  
ICS B05D001-36; B05D003-00  
ICA C09D005-38; C09D005-36; C09D005-28; C09D017-00; C09D007-12; C09D007-06;  
C09D007-02; C08G063-181; C08G063-199; C08G063-20; G01N033-32  
ICI C09D167-00, C09D101-10, C09D161-20, C09D175-06, C09D163-00  
CC 42-8 (Coatings, Inks, and Related Products)  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4327416	A1	19950216	DE 1993-4327416	19930814
	ZA 9405583	A	19950307	ZA 1994-5583	19940728
	WO 9505425	A1	19950223	WO 1994-EP2570	19940803
	W: BG, BR, BY, CA, CZ, GE, HU, JP, KG, KZ, LT, LV, MD, PL, RO, RU, SI, SK, TJ, UA, US, UZ				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CA 2168451	AA	19950223	CA 1994-2168451	19940803
	BR 9407255	A	19960924	BR 1994-7255	19940803
	EP 739394	A1	19961030	EP 1994-924838	19940803
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, PT, SE				
	JP 09501708	T2	19970218	JP 1994-506709	19940803

HU 75505 A2 19970528 HU 1996-324 19940803  
 HU 214788 B 19980528  
 PRAI DE 1993-4327416 19930814  
 WO 1994-EP2570 19940803

AB The title compns., giving good metal effects when used as base layers, contain polyesters [wt.-av. mol. wt. (Mw) 40,000-200,000, polydispersity (P) >8] prepd. from acids contg. .gtoreq.50% arom. dicarboxylic acids but .ltoreq.80% phthalic anhydride (I). A polyester (II) (Mw 105,000, P 35, OH no. 96.5) was prepd. from neopentyl glycol 1038.0, trimethylolpropane 611.2, I 1264.6, and adipic acid 831.7 parts. A mixt. of 15% cellulose acetate butyrate (III) (36-42% butyrate, Mw 40,000) 27, 15% III (OAc content 2.5-4%, Mw 40,000) 6, wax 27, II 13, melamine resin 3, Al pigment 5, and solvents 44 parts gave a film which, after 7 days, had good adhesion and color tone.

ST polyester hydroxylated coating; **metal effect coating**; cellulose acetate butyrate coating; phthalate polyester coating; adipate polyester coating; neopentyl glycol polyester coating; trimethylolpropane polyester coating

IT Polyesters, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (hydroxy-contg., protective and/or decorative coating compns. contg. hydroxylated polyesters for use in multilayer coatings)

IT **Coating materials**  
 (metal-effect, protective and/or decorative coating compns. contg. hydroxylated polyesters for use in multilayer coatings)

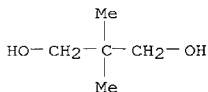
IT 9004-36-8, Cellulose acetate butyrate 25950-35-0, Adipic acid-neopentyl glycol-phthalic anhydride-trimethylolpropane copolymer **35561-07-0**, Adipic acid-isophthalic acid-neopentyl glycol-phthalic anhydride-trimethylolpropane copolymer  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (protective and/or decorative coating compns. contg. hydroxylated polyesters for use in multilayer coatings)

IT **35561-07-0**, Adipic acid-isophthalic acid-neopentyl glycol-phthalic anhydride-trimethylolpropane copolymer  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (protective and/or decorative coating compns. contg. hydroxylated polyesters for use in multilayer coatings)

RN 35561-07-0 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, hexanedioic acid and 1,3-isobenzofurandione (9CI) (CA INDEX NAME)

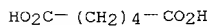
CM 1

CRN 126-30-7  
CMF C5 H12 O2

CM 2

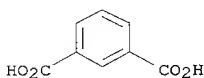


CRN 124-04-9  
CMF C6 H10 O4



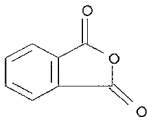
CM 3

CRN 121-91-5  
CMF C8 H6 O4



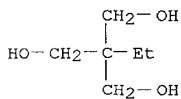
CM 4

CRN 85-44-9  
CMF C8 H4 O3



CM 5

CRN 77-99-6  
CMF C6 H14 O3



L56 ANSWER 13 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN  
AN 1995:339556 HCAPLUS  
DN 122:293522  
TI Polyester-containing **compositions** for preparation of coatings  
IN Sudo, Tetsuo; Uchida, Kenji; Ikegami, Masuya  
PA Japan U Pica Kk, Japan  
SO Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF

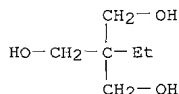
DT Patent  
 LA Japanese  
 IC ICM C09D167-00  
 ICI C09D167-00, C09D161-32  
 CC 42-8 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 35

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06287509	A2	19941011	JP 1993-79667	19930406
	JP 3210474	B2	20010917		
PRAI	JP 1993-79667		19930406		
AB	The title compns., giving antisoiling coatings with impact and weather resistance and useful for coating outdoor building materials and metal panels, contain polyesters with no.-av. mol. wt 2000-20,000 and OH value 30-150 prepd. from polyols contg. 5-40% 1,3-propanediol (I) and 5-50% amino resins. A compn. contg. isophthalic acid-neopentyl glycol-I-trimethylolpropane copolymer (acid no. 4.3; OH no. 37), TiO2, Cymel 303, Nacure 3525, Fluorad FC 430, xylene, and propylene glycol mono-Me ether acetate was coated on a surface and cured at 230.degree. to form a film with 60.degree. gloss 86%, cross-cut adhesion 100/100, and pencil hardness H.				
ST	polyester aminoplast coating weather resistance; antisoiling coating polyester aminoplast; impact resistance coating polyester aminoplast; propanediol polyester aminoplast coating				
IT	Polyesters, uses RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (antisoiling and impact- and weather-resistant coatings from aminoplasts and)				
IT	Aminoplasts RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (antisoiling and impact- and weather-resistant coatings from polyesters and)				
IT	Coating materials (antisoiling and impact- and weather-resistant; aminoplast-polyester compns. for)				
IT	Fatty acids, uses RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (coco, polymers with polycarboxylic acids and polyols, coatings; antisoiling and impact- and weather-resistant)				
IT	77-99-6DP, Trimethylolpropane, polymers with polycarboxylic acids and polyols and coco fatty acids 121-91-5DP, Isophthalic acid, polymers with polycarboxylic acids and polyols and coco fatty acids 124-04-9DP, Adipic acid, polymers with polycarboxylic acids and polyols and coco fatty acids 126-30-7DP, Neopentyl glycol, polymers with polycarboxylic acids and polyols and coco fatty acids 504-63-2DP, 1,3-Propanediol, polymers with polycarboxylic acids and polyols and coco fatty acids 163186-14-9P 163186-15-0P 163186-16-1P 163186-17-2P 163186-18-3P RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (coatings; antisoiling and impact- and weather-resistant)				
IT	77-99-6DP, Trimethylolpropane, polymers with polycarboxylic acids and polyols and coco fatty acids 124-04-9DP, Adipic acid, polymers with polycarboxylic acids and polyols and coco fatty acids				

126-30-7DP, Neopentyl glycol, polymers with polycarboxylic acids and polyols and coco fatty acids  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (coatings; antisoiling and impact- and weather-resistant)

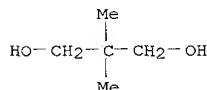
RN 77-99-6 HCAPLUS  
 CN 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)- (8CI, 9CI) (CA INDEX NAME)



RN 124-04-9 HCAPLUS  
 CN Hexanedioic acid (9CI) (CA INDEX NAME)

HO<sub>2</sub>C--(CH<sub>2</sub>)<sub>4</sub>--CO<sub>2</sub>H

RN 126-30-7 HCAPLUS  
 CN 1,3-Propanediol, 2,2-dimethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L56 ANSWER 14 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1995:207838 HCAPLUS  
 DN 122:136295  
 TI Weather-resistant topcoat **compositions** for automobiles  
 IN Narita, Yoshinori; Ito, Hiroshi; Nishizawa, Koji; Kano, Katsuhiko  
 PA Toyota Motor Co Ltd, Japan; Nippon Paint Co Ltd  
 SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C09D201-02  
 ICS C09D163-00; C09D167-00  
 CC 42-10 (Coatings, Inks, and Related Products)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06228503	A2	19940816	JP 1993-14592	19930201
PRAI	JP 1993-14592		19930201		

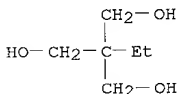
AB The title thermosetting coating compns. with good resistance to acid rain contain (A) polyesters with OH value 200-300, (B) copolymers of radically polymerizable monomers having acid anhydride groups and other comonomers in which the acid anhydride groups are half esterified, and (C) compds. having both epoxy groups and OH in the mol. at B/C = 30/70 to 70/30 and

content of A 5-20 parts (based on 100 parts B + C). Thus, isophthalic acid 215.8, adipic acid 65, 1,6-hexanediol 89.7, neopentyl glycol 98.2, trimethylolpropane 65, and Cardura E 54.0 g were polymd., then dild. with 9/1 xylol/Butyl Cellosolve to give a polyester varnish (nonvolatile content 60%; OH value 208), 14.6 parts of which was mixed with an acrylic resin varnish with nonvolatile content 59% (prepd. by copolyng. styrene 50, glycidyl methacrylate 400, 2-hydroxyethyl methacrylate 350, and 2-ethylhexyl acrylate 200 parts in xylene) 100, a half esterified polymer (obtained by treating 385 parts acid anhydride group-contg. polymer obtained by copolyng. styrene 25, Bu acrylate 21, Bu methacrylate 95, 2-ethylhexyl methacrylate 34, and itaconic acid anhydride 50 parts with MeOH in the presence of AcOBu and Et3N) 130, Bu4NBr 0.3, Tinuvin 900 1.3, and Sanol LS 299 0.7 part to give a clear coating, which was dild. with 1/1 AcOBu/xylene, then spread on a phosphate-treated steel plate precoated with a **metallic** base coating by wet-on-wet process, then baked at 140.degree. for 30 min to give a coating film with pencil hardness H, which showed good resistance to immersing water at 40.degree. for 10 days or in 10% aq. H2SO4 at 70.degree. for 15 min.

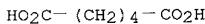
- ST weather resistant topcoating automobile; polyester acrylic thermosetting topcoating
- IT Fatty acids, uses  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (C9-11-branched, glycidyl esters, acrylic-polyester derivs.; thermosetting acrylic-polyester topcoatings for automobiles with good weather resistance)
- IT Polyesters, uses  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (acrylic, thermosetting acrylic-polyester topcoatings for automobiles with good weather resistance)
- IT Coating materials  
 (thermosetting, topcoats, transparent, weather-resistant; thermosetting acrylic-polyester topcoatings for automobiles with good weather resistance)
- IT 12597-69-2, Steel, miscellaneous  
 RL: MSC (Miscellaneous)  
 (phosphate-treated, coating substrates; thermosetting acrylic-polyester topcoatings for automobiles with good weather resistance)
- IT 77-99-6DP, acrylic-polyester derivs. 97-88-1DP, acrylic-polyester derivs. 100-42-5DP, acrylic-polyester derivs. 103-11-7DP, acrylic-polyester derivs. 106-91-2DP, acrylic-polyester derivs. 121-91-5DP, 1,3-Benzenedicarboxylic acid, acrylic-polyester derivs. 124-04-9DP, Hexanedioic acid, acrylic-polyester derivs. 126-30-7DP, acrylic-polyester derivs. 141-32-2DP, acrylic-polyester derivs. 629-11-8DP, 1,6-Hexanediol, acrylic-polyester derivs. 688-84-6DP, acrylic-polyester derivs. 868-77-9DP, acrylic-polyester derivs. 2170-03-8DP, acrylic-polyester derivs.  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (thermosetting acrylic-polyester topcoatings for automobiles with good weather resistance)
- IT 77-99-6DP, acrylic-polyester derivs. 124-04-9DP, Hexanedioic acid, acrylic-polyester derivs. 126-30-7DP, acrylic-polyester derivs.

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(thermosetting acrylic-polyester topcoatings for automobiles with good weather resistance)

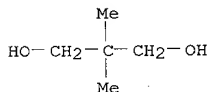
RN 77-99-6 HCAPLUS  
CN 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)- (8CI, 9CI) (CA INDEX NAME)



RN 124-04-9 HCAPLUS  
CN Hexanedioic acid (9CI) (CA INDEX NAME)



RN 126-30-7 HCAPLUS  
CN 1,3-Propanediol, 2,2-dimethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L56 ANSWER 15 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1993:562491 HCAPLUS

DN 119:162491

TI Water-thinned polyester coating **compositions**

IN Yamaguchi, Koichi; Goto, Tokio

PA Dainippon Ink and Chemicals, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09D167-00

ICS C09D005-00; C09D005-08; C09D161-20

CC 42-8 (**Coatings**, Inks, and Related Products)

Section cross-reference(s): 55

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05039457	A2	19930219	JP 1991-199291	19910808
PRAI	JP 1991-199291		19910808		

AB The title compns., forming coatings with excellent adhesion to **metals**, comprise aq. dispersions of polyesters with acid value (AV) 5-20 and OH value (OHV) 40-200, water-based amino resins, and optionally pigments. Thus, heating isophthalic acid 195, adipic acid 264,

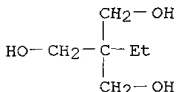
- neopentyl glycol 60, trimethylolpropane 208, and 1,6-hexanediol 352 parts in the presence of Bu<sub>2</sub>SnO at 220.degree. gave a polyester (AV 16, OHV 140), which was treated with Et<sub>3</sub>N in Bu Cellosolve and dispersed in water to give a 40%-solids aq. dispersion. A 80:20 mixt. of the dispersion and Watersol S 695 (66% solids) was blended with Tipaque R 930, applied on an cationic electrodeposited steel sheet, set 1 h at room temp., cured 20 min at 140.degree., and settled 3 days at room temp. to give a test piece showing 60.degree. gloss 90%, cross-cut adhesion 100/100, and good resistance to chipping, water, acid, alkali, and corrosion.
- ST polyester coating adhesion **metal**; aminoplast hardener polyester coating; water thinned coating polyester
- IT Crosslinking agents  
(aminoplasts, for water-thinned polyester dispersion coatings, with good **metal** adhesion)
- IT Polyesters, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(coatings, water-thinned, for **metals**, with good adhesion)
- IT Aminoplasts  
RL: MOA (Modifier or additive use); USES (Uses)  
(crosslinking agents, for water-thinned polyester dispersion coatings, with good **metal** adhesion)
- IT Alkyd resins  
RL: USES (Uses)  
(vinyl polymer-modified, for water-thinned coatings, with good **metal** adhesion)
- IT Fatty acids, polymers  
RL: USES (Uses)  
(dehydrated castor-oil, alkyd derivs., vinyl polymer-modified, for water-thinned coatings, with good **metal** adhesion)
- IT Coating materials  
(dispersion, water-thinned, polyester-aminoplast blends, for **metals**)
- IT Urethane polymers, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(polyester-, coatings, water-thinned, for **metals**, with good adhesion)
- IT 12597-69-2, Steel, miscellaneous  
RL: MSC (Miscellaneous)  
(coatings for, water-thinned, polyester-aminoplast blends, with good adhesion.)
- IT 9003-08-1, Watersol S 695  
RL: USES (Uses)  
(hardeners, for vinyl polymer-modified alkyd resins, for water-thinned coatings with good **metal** adhesion)
- IT 77-99-6DP, alkyd derivs., vinyl polymer-modified, triethylamine salts 79-10-7DP, 2-Propenoic acid, polymers, reaction products with alkyd resins, triethylamine salts 121-91-5DP, 1,3-Benzenedicarboxylic acid, alkyd derivs., vinyl polymer-modified, triethylamine salts 124-04-9DP, Hexanedioic acid, alkyd derivs., vinyl polymer-modified, triethylamine salts 126-30-7DP, alkyd derivs., vinyl polymer-modified, triethylamine salts 141-32-2DP, polymers, reaction products with alkyd resins, triethylamine salts 629-11-8DP, 1,6-Hexanediol, alkyd derivs., vinyl polymer-modified, triethylamine salts 150108-29-5P 150108-31-9P  
RL: PREP (Preparation)  
(prep. of, coatings, water-thinned, with good **metal** adhesion)
- IT 77-99-6DP, alkyd derivs., vinyl polymer-modified, triethylamine

salts **124-04-9DP**, Hexanedioic acid, alkyd derivs., vinyl  
polymer-modified, triethylamine salts **126-30-7DP**, alkyd derivs.,  
vinyl polymer-modified, triethylamine salts  
RL: PREP (Preparation)

(prepn. of, coatings, water-thinned, with good metal  
adhesion)

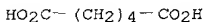
RN 77-99-6 HCAPLUS

CN 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)- (8CI, 9CI) (CA INDEX NAME)



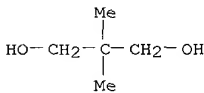
RN 124-04-9 HCAPLUS

CN Hexanedioic acid (9CI) (CA INDEX NAME)



RN 126-30-7 HCAPLUS

CN 1,3-Propanediol, 2,2-dimethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L56 ANSWER 16 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1991:166526 HCAPLUS

DN 114:166526

TI Self-adhesive, multilayer, thermoformable decorative covers

IN Hartman, Marvis Edgar

PA PPG Industries, Inc., USA

SO Eur. Pat. Appl., 25 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM B32B027-42

ICS B32B027-40; B32B027-30; B05D007-16; B05D001-00; C09D175-04;  
C09D161-28

CC 42-11 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 395227	A1	19901031	EP 1990-303337	19900329
	R: AT, BE, DE, ES, FR, GB, IT, NL, SE				
	CA 2013676	AA	19901027	CA 1990-2013676	19900403
	JP 02301431	A2	19901213	JP 1990-115041	19900427
PRAI	US 1989-344172		19890427		

- AB Decorative covers, e.g., for automobile bodies, comprise a thermoformable plastic carrier, an adhesive on one side, and a multilayer system comprising a clear top layer, a pigmented base layer (contg. a thermoplastic binder and an aminoplast), and optionally, a tie-layer between the base layer and the carrier on the other side. The adhesive side is temporarily protected by paper or plastic film. Thus, a 7-mil polyester (PMB 10231) film was coated on one side with a 3-mil acrylic adhesive and coated on the other side with a 0.33-mil tie-layer prep. by drying an aq. compn. contg. a polyester-polyoxyalkylene-polyurethane, an acrylic polymer, and a melamine resin 10 min at 180.degree.F. The tie-layer side was coated with a 3.1-mil TiO2-pigmented polyester-polyoxyalkylene-polyurethane-melamine resin blend based layer (cured at 10 min at 180.degree.F) and overcoated with a 2.5-mil 2-package block polyester-polyurethane clear layer (cured 10 min at 180.degree.F).
- ST self adhesive multilayer decorative cover; thermoformable decorative cover automobile body; polyester multilayer decorative cover; acrylic adhesive multilayer decorative cover; polyoxyalkylene polyester polyurethane decorative cover; melamine resin multilayer decorative cover; titania pigmented multilayer decorative cover
- IT Adhesives
  - (acrylic and acrylic-polyurethane, for self-adhesive multilayer thermal formable decorative covering films)
- IT Polyesters, uses and miscellaneous
  - RL: USES (Uses)
  - (carrier films, for self-adhesive multilayer thermoformable decorative cover films)
- IT Mica-group minerals, uses and miscellaneous
  - RL: USES (Uses)
  - (metal-coated, pigments, for self-adhesive multilayer thermoformable decorative cover films)
- IT Carbon black, uses and miscellaneous
  - RL: USES (Uses)
  - (pigments, for self-adhesive multilayer thermoformable decorative cover films)
- IT Automobiles
  - (bodies, decorative covering films for, self-adhesive multilayer thermal formable)
- IT Urethane polymers, uses and miscellaneous
  - RL: USES (Uses)
  - (polyester-, block, clear layers, for self-adhesive multilayer thermal formable decorative covering films)
- IT Rubber, urethane, uses and miscellaneous
  - RL: USES (Uses)
  - (polyester-polyoxyalkylene-polyurea-, decorative cover films contg., self-adhesive multilayer, thermoformable)
- IT Rubber, synthetic
  - RL: USES (Uses)
  - (polyester-polyoxyalkylene-polyurea-polyurethane, decorative cover films contg., self-adhesive multilayer, thermoformable)
- IT 132965-55-0, PMS 10231
  - RL: USES (Uses)
  - (carrier films, for self-adhesive multilayer thermoformable decorative cover films)
- IT 9003-08-1, Resimene 717
  - RL: MOA (Modifier or additive use); USES (Uses)
  - (crosslinking agents, for tie-layers for self-adhesive multilayer thermoformable decorative cover films)
- IT 69834-15-7P 132878-92-3P



RL: IMF (Industrial manufacture); PREP (Preparation)  
(manuf. and lamination of)

IT 77-99-6DP, fatty acid dimer-based block polyester-polyurethanes  
126-30-7DP, fatty acid dimer-based block polyester-polyurethanes  
3779-63-3DP, fatty acid dimer-based block polyester-polyurethanes  
4098-71-9DP, Isophorone diisocyanate, fatty acid dimer-based block  
polyester-polyurethanes 27193-25-5DP, Cyclohexanedimethanol, fatty acid  
dimer-based block polyester-polyurethanes 104559-01-5DP, Desmodur  
N-3300, fatty acid dimer-based block polyester-polyurethanes  
133170-64-6P

RL: PREP (Preparation)  
(manuf. of, for clear layers for self-adhesive multilayer  
thermoformable decorative cover films)

IT 52991-24-9DP, Hydroxyethylethylenimine, reaction products with  
polyester-polyoxyalkylene-polyurethanes 64614-15-9P 69834-15-7DP,  
reaction products with hydroxyethylethylenimine **116243-55-1P**,  
Adipic acid-neopentyl glycol-tetrahydrophthalic anhydride-  
trimethylolpropane copolymer phosphate 132878-92-3DP, reaction products  
with hydroxyethylethylenimine

RL: PREP (Preparation)  
(manuf. of, for self-adhesive multilayer thermoformable decorative  
cover films)

IT 65997-31-1P

RL: PREP (Preparation)  
(manuf. of, for tie-layers for self-adhesive multilayer thermoformable  
decorative cover films)

IT 147-14-8 7429-90-5, Aluminum, uses and miscellaneous 12597-70-5,  
Bronze 13463-67-7, Titanium oxide (TiO<sub>2</sub>), uses and miscellaneous

RL: USES (Uses)  
(pigments, for self-adhesive multilayer thermoformable decorative cover  
films)

IT **116243-55-1P**, Adipic acid-neopentyl glycol-tetrahydrophthalic  
anhydride-trimethylolpropane copolymer phosphate

RL: PREP (Preparation)  
(manuf. of, for self-adhesive multilayer thermoformable decorative  
cover films)

RN 116243-55-1 HCAPLUS

CN Hexanedioic acid, polymer with 4-cyclohexene-1,2-dicarboxylic acid,  
2,2-dimethyl-1,3-propanediol and 2-ethyl-2-(hydroxymethyl)-1,3-  
propanediol, phosphate (9CI) (CA INDEX NAME)

CM 1

CRN 7664-38-2

CMF H3 O4 P



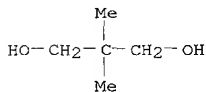
CM 2

CRN 188494-47-5

CMF (C8 H10 O4 . C6 H14 O3 . C6 H10 O4 . C5 H12 O2)x  
CCI PMS

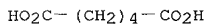
CM 3

CRN 126-30-7  
CMF C5 H12 O2



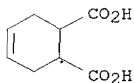
CM 4

CRN 124-04-9  
CMF C6 H10 O4



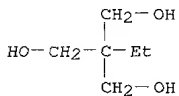
CM 5

CRN 88-98-2  
CMF C8 H10 O4



CM 6

CRN 77-99-6  
CMF C6 H14 O3



L56 ANSWER 17 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN  
AN 1986:516759 HCAPLUS  
DN 105:116759  
TI Paint compositions

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

IN Sakata, Kenji; Kikuta, Yoshio; Misawa, Akira; Hasegawa, Yugo  
 PA Mitsui Toatsu Chemicals, Inc., Japan  
 SO Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C09D005-38  
 ICS C09D003-58  
 CC 42-10 (Coatings, Inks, and Related Products)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 61055169	A2	19860319	JP 1984-178104	19840827
	JP 05001312	B4	19930107		
PRAI	JP 1984-178104		19840827		

AB Compns. for weather-resistant **metallic coatings** for automobiles comprise 100 parts mixt. of 90-30 parts polymer contg. functional groups and 10-70 parts alicyclic polyvalent epoxy resin, 0.2-2.0 parts F3CSO3H, Al powder, and pigments. Thus, 40.0 parts acrylic resin prepd. from styrene 10, Me methacrylate 25, Et acrylate 30, Bu methacrylate 21, 2-hydroxyethyl methacrylate 12, and acrylic acid 2 parts was mixed with ERL 4221 20.0, Alpaste 1700 NL (Al powder) 15.2, and F3CSO3H neutralized with Et3N 0.8 part, then dild. with 1:1:1 mixt. of xylene, ethylene glycol monobutyl ether, and Et acetate to Ford Cup No. 4 viscosity 20 s to obtain a paint **compn.**. A dull Cu plate coated with this paint **compn.**, then with acrylic top coat did not change after 72 h at 50.degree. and 100% relative humidity and showed gloss (60.degree.) 97 and pencil hardness H.

ST metallic paint **compn** automobile; acrylic polymer metallic paint **compn**; epoxy resin metallic paint **compn**; aluminum powder metallic paint **compn**; fluoromethanesulfonic acid metallic paint **compn**

IT **Coating materials**  
 (weather-resistant, **metallic**, contg. epoxy resin-functional polymer binder and aluminum powder and trifluoromethanesulfonic acid, for automobiles)

IT 69399-83-3 **104282-85-1**  
 RL: USES (Uses)  
 (blend with alicyclic epoxy resin, **coatings**, contg. **aluminum powder**, for automobiles)

IT 25085-98-7  
 RL: USES (Uses)  
 (blend with functional polymer, **coatings**, contg. **aluminum powder**, for automobiles)

IT 1493-13-6  
 RL: USES (Uses)  
 (epoxy-functional polymer coatings contg.,)

IT 7429-90-5, uses and miscellaneous  
 RL: USES (Uses)  
 (pigment, epoxy-functional polymer coatings contg., for automobiles)

IT **104282-85-1**  
 RL: USES (Uses)  
 (blend with alicyclic epoxy resin, **coatings**, contg. **aluminum powder**, for automobiles)

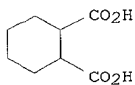
RN 104282-85-1 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 1,2-cyclohexanedicarboxylic acid, 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and hexanedioic acid (9CI) (CA INDEX NAME)

CM 1

CRN 1687-30-5

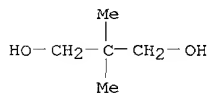
CMF C8 H12 O4



CM 2

CRN 126-30-7

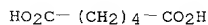
CMF C5 H12 O2



CM 3

CRN 124-04-9

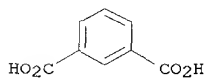
CMF C6 H10 O4



CM 4

CRN 121-91-5

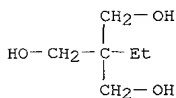
CMF C8 H6 O4



CM 5

CRN 77-99-6

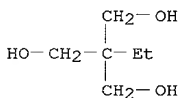
CMF C6 H14 O3



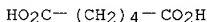
L56 ANSWER 18 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1985:26507 HCAPLUS  
 DN 102:26507  
 TI **Compositions** for wet-on-wet coating with water-thinned primers  
 PA Nippon Paint Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC C09D003-64; C09D005-00  
 CC 42-8 (Coatings, Inks, and Related Products)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 59115364	A2	19840703	JP 1982-223664	19821222
	JP 05087546	B4	19931217		
PRAI	JP 1982-223664		19821222		
AB	<p>Water-thinned precoat of polymers having both OH and CO<sub>2</sub>H groups, with no.-av. mol. wt. (.hivin.Mn) 1000-4000 and acid value (.chi.a) 10-80 can be coated with org. solvent-thinned compns. of similar polymers without first drying or baking the precoat. Thus, tall-oil fatty acids 260, trimethylolpropane 432, neopentyl glycol 56, polyethylene glycol 65, isophthalic acid 159, phthalic anhydride 283, tetrahydrophthalic anhydride 147, xylene 26, and Bu<sub>2</sub>SnO 1.3 g were mixed and heated, distg. off water, to form an alkyd resin (I) having .hivin.Mn 1450 and .chi.a 31. I 25, butylated melamine resin (II) 6, TiO<sub>2</sub> 20, Butyl Cellosolve (III) [111-76-2] 5, Et<sub>3</sub>N 1, leveling agents 2, and water 41 parts were mixed to form an electrophoretic coating <b>compn.</b>, which was applied to test plates to form a precoat 30-40.mu. thick. The precoat plate was then sprayed with a <b>compn.</b> of I 31.2, II 11.0, TiO<sub>2</sub> 27.0, III 11.8, isopropyl alc. [67-63-0] 18.0, Et<sub>3</sub>N 1.0, and leveling agent 0.1 part to form a topcoat 30-40.mu. thick. After 10 min at room temp., the plate was baked at 150.degree. for 30 min to form a cured coating showing no blistering, and good topcoat hiding power.</p>				
ST	wet on wet alkyd coating; tall oil acid alkyd coating				
IT	Fatty acids, polymers				
	RL: USES (Uses)				
	(castor-oil, alkyd resins, coatings, wet-on-wet, water- and solvent-thinned)				
IT	Fatty acids, polymers				
	RL: USES (Uses)				
	(soya, alkyd resins, coatings, wet-on-wet, water- and solvent-thinned)				
IT	Fatty acids, polymers				
	RL: USES (Uses)				
	(tall-oil, alkyd resins, coatings, wet-on-wet, water- and solvent-thinned)				
IT	Coating materials				
	(wet-on-wet, alkyd resins, water- and solvent-thinned)				
IT	77-85-0D, alkyd resins 77-99-6D, alkyd resins 85-42-7D, alkyd				

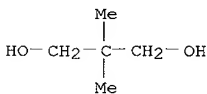
resins 85-43-8D, alkyd resins 85-44-9D, alkyd resins 107-21-1D, alkyd resins 111-29-5D, alkyd resins 111-46-6D, alkyd resins 115-77-5D, alkyd resins 121-91-5D, alkyd resins 123-99-9D, alkyd resins 124-04-9D, alkyd resins 126-30-7D, alkyd resins 552-30-7D, alkyd resins 25322-68-3D, alkyd resins  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (coatings, wet-on-wet, water- and solvent-thinned)  
 IT 67-63-0, uses and miscellaneous 111-76-2  
 RL: USES (Uses)  
 (in manuf. of alkyd coating compns.)  
 IT 77-99-6D, alkyd resins 124-04-9D, alkyd resins 126-30-7D, alkyd resins  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (coatings, wet-on-wet, water- and solvent-thinned)  
 RN 77-99-6 HCAPLUS  
 CN 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)- (8CI, 9CI) (CA INDEX NAME)



RN 124-04-9 HCAPLUS  
 CN Hexanedioic acid (9CI) (CA INDEX NAME)



RN 126-30-7 HCAPLUS  
 CN 1,3-Propanediol, 2,2-dimethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L56 ANSWER 19 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1983:524226 HCAPLUS  
 DN 99:124226  
 TI Liquid coating composition for metal surfaces, and a process for coating them with this coating composition  
 IN Nota, Gabriel A. H.; Toth, Anton  
 PA ASTRAL Societe de Peintures et Vernis, Fr.; ATO Chimie  
 SO Eur. Pat. Appl., 22 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 IC C09D003-70; C09D003-66  
 CC 42-10 (Coatings, Inks, and Related Products)

## FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 83139	A1	19830706	EP 1982-201648	19821222
	EP 83139	B1	19860611		
	R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE				
	AU 8291745	A1	19830630	AU 1982-91745	19821221
	AU 555040	B2	19860911		
	AT 20355	E	19860615	AT 1982-201648	19821222
	DK 8205703	A	19830625	DK 1982-5703	19821223
	FI 8204448	A	19830625	FI 1982-4448	19821223
	FI 74296	B	19870930		
	FI 74296	C	19880111		
	NO 8204353	A	19830627	NO 1982-4353	19821223
	BR 8207470	A	19831018	BR 1982-7470	19821223
	ZA 8209474	A	19831026	ZA 1982-9474	19821223
	US 4424239	A	19840103	US 1982-452722	19821223
	ES 518504	A1	19840201	ES 1982-518504	19821223
	CA 1172788	A1	19840814	CA 1982-418507	19821223
	JP 58164658	A2	19830929	JP 1982-226464	19821224
PRAI	NL 1981-5834		19811224		
	EP 1982-201648		19821222		
AB	A coil coating compn. is described contg. 10-80% powd. polyamide with softening point 110-230.degree. and an av. particle size 0.5-200 .mu., 20-90% polyol with no.-av. mol. wt. 800-20,000 and OH-functionality 1.5-6, crosslinking agent in the mol. ratio 0.6-1.5:1 between polyol-reactive groups of this agent and polyol, and 40-60% org. solvent with b.p. 140-310.degree. for the polyol. Thus, a coating was prepd. by admixing 70% adipic acid-2,2-dimethyl-1,3-propanediol-ethylene glycol-isophthalic acid-1,1,1-trimethylolpropane copolymer [28430-18-4] soln. in ethylene glycol acetate Et ether [111-15-9]-solvento 150 (1:2) mixt., 50; nylon 12 [24937-16-4] 40; hexamethoxymethylmelamine [3089-11-0] 9; solvent mixt. 20; pigment dispersion 81; leveling agent 2; and a crosslinking catalyst 0.1 part. The coating is applied onto an epoxy-primed steel substrate to thickness 25-30 .mu. (in cured state) and dried at 300-400.degree. for 20-60 s, exhibited Gardner back impact resistance 160 in-lb, salt spray resistance 600 h (ASTM B 117-64), wt. loss to abrasion 18 mg/1000 cycles, and good flexibility.				
ST	crosslinking agent polyamide polyester coating; solvent polyamide polyester coating; coil polyamide polyester coating				
IT	Coating materials				
	(polyamide and hydroxy-functional polyester compns., for coils)				
IT	Aromatic hydrocarbons, uses and miscellaneous				
	RL: USES (Uses)				
	(solvents, for polyamide and hydroxy-functional polyester coil coatings)				
IT	Crosslinking agents				
	(thermal, for polyamide-hydroxy-functional polyester coatings)				
IT	24936-74-1		24937-16-4		
	RL: USES (Uses)				
	(coatings contg. hydroxy-functional polyesters and, for coil stock)				
IT	77-99-6D, polymers with Cl8-synthetic acids and phthalic anhydride, reaction products with Me-Ph siloxane 85-44-9D, polymers with Cl8-synthetic acid and trimethylolpropane, reaction products with Me-Ph siloxane 6843-66-9D, reaction products with dimethylpropanediol-ethylene glycol-hexahydrophthalic anhydride-trimethylolpropane copolymer 28430-18-4 29408-39-7D, reaction products with alkoxyated Me-Ph				

siloxane 31070-11-8 52453-41-5 87079-33-2D, reaction products with  
Ph siloxane diol 87079-34-3 87079-34-3D, reaction products with  
diphenyldimethoxysilane

RL: USES (Uses)

(coatings contg. polyamides and, for coil stock)

IT 3089-11-0 72968-13-9

RL: MOA (Modifier or additive use); USES (Uses)

(crosslinking agents, for polyamide and hydroxy-functional polyester  
coil coatings)

IT 78-59-1 111-15-9 111-76-2 112-07-2 1330-20-7, uses and  
miscellaneous

RL: USES (Uses)

(solvents, for polyamide and hydroxy-functional polyester coil  
coatings)

IT **28430-18-4**

RL: USES (Uses)

(coatings contg. polyamides and, for coil stock)

RN 28430-18-4 HCAPLUS

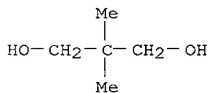
CN 1,3-Benzenedicarboxylic acid, polymer with 2,2-dimethyl-1,3-propanediol,  
1,2-ethanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and hexanedioic  
acid (9CI) (CA INDEX NAME)

CM 1

CRN 126-30-7

CMF C5 H12 O2

*neopentyl glycol*

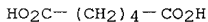


CM 2

CRN 124-04-9

CMF C6 H10 O4

*adipic acid*

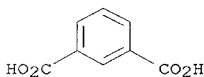


CM 3

CRN 121-91-5

CMF C8 H6 O4

*phthalic*

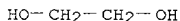




CM 4

CRN 107-21-1

CMF C2 H6 O2

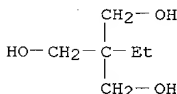


*polyol*

CM 5

CRN 77-99-6

CMF C6 H14 O3



*trimethylolpropane*

L56 ANSWER 20 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1983:127820 HCAPLUS

DN 98:127820

TI Metallic finishing

PA Mitsui Toatsu Chemicals, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC B05D005-06; B05D001-38

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 55

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 57156069	A2	19820927	JP 1981-41957	19810323
	JP 61047146	B4	19861017		
PRAI	JP 1981-41957		19810323		

AB A substrate was coated with a midlayer sealer and a metallic paint by a two-coat-one-bake method, coated with a clear topping, and baked to give a flawless finish coating with excellent surface smoothness. For example, styrene 15, Me methacrylate 30, Bu acrylate 20, 2-ethylhexyl acrylate 20, 2-hydroxyethyl methacrylate 13, and acrylic acid 2 parts were polymd. in the presence of 1.5 parts Bz2O2 in 70:30 xylene-BuOH to give a 50%-solids soln. which (88 parts) was mixed with Yuban 20SE-60 18.3, TiO<sub>2</sub> 45, and carbon black 0.7 part and dild. with 80:20 xylene-BuOCH<sub>2</sub>CH<sub>2</sub>OH to Ford cup no. 4 viscosity 25 s to give a midlayer sealer. Styrene 10, Me methacrylate 20, Et acrylate 20, Bu acrylate 20, 2-ethylhexyl acrylate 13, 2-hydroxyethyl acrylate 15, and methacrylic acid 2 parts were polymd. in the presence of 3.5 parts Bz2O2 in 70:30 xylene-BuOH to give a 65%-solids soln. which (140 parts) was mixed with 50 parts Yuban 20SE-60 and 13 parts Alpaste 1109MA and thinned with solvents to give a 45%-solids metallic paint having Ford cup no. 4

viscosity 14 s. Styrene 10, Me methacrylate 17, Bu acrylate 18, 2-ethylhexyl methacrylate 35, 2-hydroxyethyl methacrylate 18, and acrylic acid 2 parts were polymd. in the presence of 2 parts Bz2O2 in 80:20 Solvesso 100-BuOH to give a 50%-solids soln. which (140 parts) was mixed with Yuban 20SE-60 50, a flow control 0.2, and Tinuvin 0.2 part and thinned with Solvesso 100 to Ford cup no. 4 viscosity 30 s to give a clear topping **compn.** A Zn phosphate-treated steel plate baked with an electrophoretic primer was coated with the sealer, set 3 min, coated with the **metallic** paint, set 10 min, baked at 120.degree. for 20 min, cooled to room temp., coated with the topping, set 10 min, and baked at 140.degree. for 20 min to give a flawless coating (20 .mu. sealer, 15 .mu. metallic, 28 .mu. topping) with better surface smoothness than a control (contg. cracks) using a 2-coat-2-bake method for the sealer-metallic paint system.

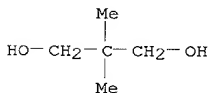
ST acrylic metallic paint finishing  
IT Coating process  
(of midlayer sealers and metal paints and clear toppings)  
IT 77492-22-9  
RL: TEM (Technical or engineered material use); USES (Uses)  
(coatings, clear, on **metallic** paints)  
IT 71815-98-0 85110-88-9 85110-90-3 85110-91-4  
RL: USES (Uses)  
(metallic paint undercoatings and clear top coatings for)  
IT **28430-18-4** 61988-41-8 85110-89-0  
RL: USES (Uses)  
(sealers, contg. melamine resins, under metallic paints)  
IT **28430-18-4**  
RL: USES (Uses)  
(sealers, contg. melamine resins, under metallic paints)  
RN 28430-18-4 HCAPLUS  
CN 1,3-Benzenedicarboxylic acid, polymer with 2,2-dimethyl-1,3-propanediol, 1,2-ethanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and hexanedioic acid (9CI) (CA INDEX NAME)

CM 1

CRN 126-30-7

CMF C5 H12 O2

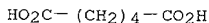
*has all components*



CM 2

CRN 124-04-9

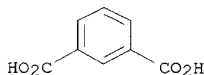
CMF C6 H10 O4



CM 3

CRN 121-91-5

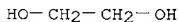
CMF C8 H6 O4



CM 4

CRN 107-21-1

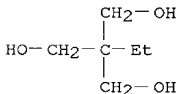
CMF C2 H6 O2



CM 5

CRN 77-99-6

CMF C6 H14 O3



L56 ANSWER 21 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1979:576817 HCAPLUS

DN 91:176817

TI Curing resin **compositions** for baking varnish

IN Take, Morio; Ikeguchi, Nobuyuki; Kimbara, Hidenori

PA Mitsubishi Gas Chemical Co., Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC C08G073-06

CC 42-10 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 54099200	A2	19790804	JP 1978-5007	19780120
	JP 57006447	B4	19820204		
PRAI	JP 1978-5007		19780120		

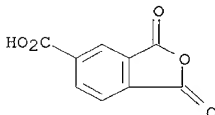
AB Thermosetting coatings contain mixts. or reaction products of polycyanates or prepolymers with polyfunctional maleimides or prepolymers and alkyd resins and/or acrylic resins with high acid nos. Thus, an oil-free alkyd

resin (acid no. 40-45, mol. wt. 1840) from neopentyl glycol 348, trimethylolpropane 112, isophthalic acid 489, adipic acid 143, and trimellitic anhydride 44 parts is dild. with MeOCH<sub>2</sub>CH<sub>2</sub>OH to 70% solids. A mixt. of 80 parts this soln. (based on solids), 20 parts 2,2-bis(4-cyanatophenyl)propane [1156-51-0], and N,N'-(methylenedi-p-phenylene)dimalleimide [13676-54-5], dild. with 13.4 parts AcCH<sub>2</sub>CO<sub>2</sub>Et and 26 parts DMF, is coated on metal and baked 20 min at 160.degree..

ST alkyd coating thermosetting; maleimide deriv alkyd coating; cyanate ester alkyd coating  
 IT Coating materials  
 (alkyd resins, contg. bismaleimides and cyanate esters)  
 IT 1156-51-0 13676-54-5  
 RL: USES (Uses)  
 (in alkyd stoving finishes)  
 IT 64112-55-6  
 RL: USES (Uses)  
 (stoving finishes, contg. bismaleimides and cyanate esters)  
 IT 64112-55-6  
 RL: USES (Uses)  
 (stoving finishes, contg. bismaleimides and cyanate esters)  
 RN 64112-55-6 HCAPLUS  
 CN 1,3-Benzenedicarboxylic acid, polymer with 1,3-dihydro-1,3-dioxo-5-isobenzofurancarboxylic acid, 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and hexanedioic acid (9CI) (CA INDEX NAME)

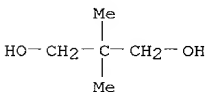
CM 1

CRN 552-30-7  
 CMF C9 H4 O5



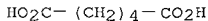
CM 2

CRN 126-30-7  
 CMF C5 H12 O2

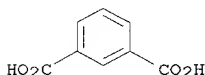


CM 3

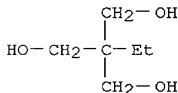
CRN 124-04-9  
CMF C6 H10 O4



CM 4  
CRN 121-91-5  
CMF C8 H6 O4



CM 5  
CRN 77-99-6  
CMF C6 H14 O3



L56 ANSWER 22 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN  
AN 1979:188614 HCAPLUS

DN 90:188614

TI **Metallic powder coating compositions**

IN Murase, Heihachi

PA Kansai Paint Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC C09D005-00

CC 42-2 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 53143630	A2	19781214	JP 1977-59035	19770520
	JP 61036029	B4	19860815		
PRAI	JP 1977-59035		19770520		

AB A multilayered **metallic coating** is formed by a 1 coat-1 bake process from a powder **compn.** contg. .gtoreq.2 incompatible resins differing in surface tension and multilayer formation parameter (Hd; H is creep height in cm of molten resin along inner wall of a vertical glass tube immersed in the molten resin, at a given time and

temp., and d is resin d. in g/cm<sup>3</sup>). The metallic pigment is covered with a resin whose surface tension is not the lowest among the resins used and the pigment is prevented from exposure to the resin surface. For example, 10:20:40:15:15 2-ethylhexyl acrylate-glycidyl methacrylate-iso-Bu methacrylate-Me methacrylate-styrene copolymer [69725-55-9] was milled with 17 phr dodecanedicarboxylic acid to av. particle size 45.mu. (max. particle size <74 .mu.) to give component A with Hd 0.85 g/cm<sup>2</sup> and surface tension 80.6 dyne/cm. A 1:6:8:8:2.5 adipic acid-di-Me terephthalate-isophthalic acid-neopentyl glycol-trimethylolpropane copolymer (I) [65421-56-9] (Hd 0.55 g/cm<sup>2</sup>, surface tension 40 dyne/cm) was milled with 7 phr phthalocyanine blue and 80 phr .epsilon.-caprolactam-blocked isophorone diisocyanate (19% NCO) to give component B with Hd 0.48 g/cm<sup>2</sup> and surface tension 45.8 dyne/cm. A 0.5% I soln. in acetone was mixed in 100:80 ratio with Al flake and spray-dried to give component C. A 40:60:5 A-B-C powder **compn.** was electrostatically coated on an epoxy-primed steel and baked at 185.degree. for 85 min to give a coating of 75 .mu.-thick silvery blue I layer and 45 .mu.-thick acrylic top layer.

ST multilayer acrylic metallic paint; polyester multilayer metallic paint; epoxy multilayer metallic paint; powder **coating metallic** steel

IT **Coating materials**  
(paint, **metallic**, multilayered, on steel, 1-step prepn. of)

IT **Coating materials**  
(powder, **metallic**, multilayered, on steel, 1-step prepn. of)

IT 9004-36-8 25068-38-6 37337-82-9 63266-53-5 **65421-56-9**  
69725-55-9 69841-05-0  
RL: USES (Uses)

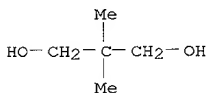
(**coatings** contg., **metallic** multilayer, on steel,  
1-step prepn. of)

IT **65421-56-9**  
RL: USES (Uses)  
(**coatings** contg., **metallic** multilayer, on steel,  
1-step prepn. of)

RN 65421-56-9 HCAPLUS  
CN 1,3-Benzenedicarboxylic acid, polymer with dimethyl 1,4-benzenedicarboxylate, 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and hexanedioic acid (9CI) (CA INDEX NAME)

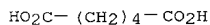
CM 1

CRN 126-30-7  
CMF C5 H12 O2



CM 2

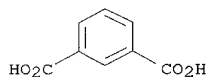
CRN 124-04-9  
CMF C6 H10 O4



CM 3

CRN 121-91-5

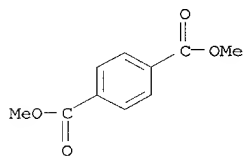
CMF C8 H6 O4



CM 4

CRN 120-61-6

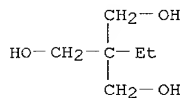
CMF C10 H10 O4



CM 5

CRN 77-99-6

CMF C6 H14 O3



L56 ANSWER 23 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN  
AN 1977:191408 HCAPLUS  
DN 86:191408  
TI High solids content alkyd resin coating **compositions**  
IN Ishii, Nobuyuki; Iwase, Seigo  
PA Kansai Paint Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

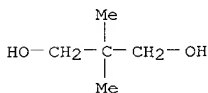
DT Patent  
 LA Japanese  
 IC C09D005-08  
 CC 42-2 (Coatings, Inks, and Related Products)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 52026534	A2	19770228	JP 1975-103251	19750826
PRAI	JP 1975-103251		19750826		
AB	High-solids (60-90%) resin coating compns. were prepd. from neutralized solns. of oil-free alkyd resins or short oil alkyd resins of oil length .1 to req. 35% contg. tri- or tetrabasic acids. Thus, 100 parts polyester [ 62548-84-9] (av. mol. wt. 3500, OH no. 120, acid no. 40) obtained by heating at 230.degree. a mixt. of neopentyl glycol 0.75, trimethylolpropane 0.25, phthalic anhydride 0.60, adipic acid 0.16, and trimellitic anhydride 0.125 mol was dissolved in 20 parts Bu Cellosolve and neutralized with Et3N to give a neutralized resin soln. The resin soln. 110, M-504C [62601-52-9] (a com. melamine resin) 28, TiO2 500, and a film leveling agent 2 parts were uniformly dispersed, and dild. with Bu Cellosolve to give a resin coating compn. (68% solids), which was spray coated on an Al panel and baked 20 min at 120.degree. to give a 30-.mu.-thick anticorrosive, glossy, water-, and impact-resistant coating with pencil hardness 24, and adhesion 100/100 (crosscut test).				
ST	alkyd resin coating; <b>aluminum</b> anticorrosive alkyd coating				
IT	Coating materials				
IT	(alkyd resins, high-solids oil-free or short oil, for aluminum)				
IT	62601-52-9				
	RL: USES (Uses)				
	(alkyd resin <b>coatings</b> contg., high-solids, for <b>aluminum</b> )				
IT	7429-90-5, uses and miscellaneous				
	RL: USES (Uses)				
	(coatings for, high-solids, from oil-free or short oil alkyd resins)				
IT	62548-80-5 62548-81-6 62548-84-9 62694-56-8				
	RL: TEM (Technical or engineered material use); USES (Uses)				
	(coatings, high-solids, for <b>aluminum</b> )				
IT	62548-81-6 62548-84-9				
	RL: TEM (Technical or engineered material use); USES (Uses)				
	(coatings, high-solids, for <b>aluminum</b> )				
RN	62548-81-6 HCAPLUS				
CN	Hexanedioic acid, polymer with 1H,3H-benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone, 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and 1,3-isobenzofurandione (9CI) (CA INDEX NAME)				

CM 1

CRN 126-30-7

CMF C5 H12 O2

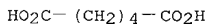




CM 2

CRN 124-04-9

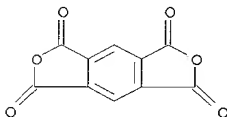
CMF C6 H10 O4



CM 3

CRN 89-32-7

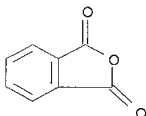
CMF C10 H2 O6



CM 4

CRN 85-44-9

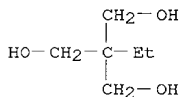
CMF C8 H4 O3



CM 5

CRN 77-99-6

CMF C6 H14 O3



RN 62548-84-9 HCAPLUS

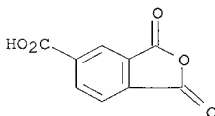
CN Hexanedioic acid, polymer with 1,3-dihydro-1,3-dioxo-5-isobenzofurancarboxylic acid, 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and 1,3-isobenzofurandione (9CI)

(CA INDEX NAME)

CM 1

CRN 552-30-7

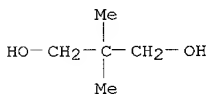
CMF C9 H4 O5



CM 2

CRN 126-30-7

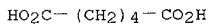
CMF C5 H12 O2



CM 3

CRN 124-04-9

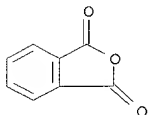
CMF C6 H10 O4



CM 4

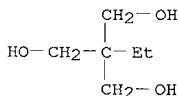
CRN 85-44-9

CMF C8 H4 O3



CM 5

CRN 77-99-6  
CMF C6 H14 O3



L56 ANSWER 24 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1977:173222 HCAPLUS

DN 86:173222

TI Water-thinned resin **coating compositions** for **aluminum** substrates

IN Ishii, Nobuyuki; Iwase, Seigo

PA Kansai Paint Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC C09D003-66

CC 42-7 (Coatings, Inks, and Related Products)

FAN.CNT 1

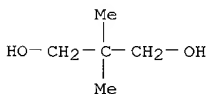
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 52019728	A2	19770215	JP 1975-96538	19750808
PRAI	JP 1975-96538		19750808		
AB	Water-thinned resin coating compns. are prepd. by mixing water-sol. alkyd resins contg. tribasic or tetrabasic acid components with amino resins and applied to unprimed Al substrates. Thus, 110 parts of a resin [ <b>62548-84-9</b> ] (OH value 120, acid value 40, obtained by heating at 100.degree. a mixt. of neopentyl glycol 0.75, trimethylolpropane 0.25, phthalic anhydride 0.60, adipic acid 0.16, and trimellitic anhydride 0.125 mol) was dissolved in 20% Bu cellosolve, neutralized with Et3N, dild. with water to 65% resin, formulated with a com. melamine resin 28, TiO2 500, and an additive 2 parts, dild. with water to 40% solids (viscosity Ford Cup 20 sec, 20.degree.), sprayed onto an Al panel, and baked 20 min at 120.degree. to give a 30-.mu.-thick glossy, anticorrosive, impact- and water-resistant coating with pencil hardness 24, Erichsen value >7.0 mm and adhesion to the substrate 100/100 (crosscut test).				
ST	water thinned resin coating; alkyd resin coating; amino resin coating; anticorrosive resin <b>coating aluminum</b>				
IT	Coating materials				
IT	(melamine resin-polyester compns., water-thinned, for aluminum)				
IT	Coconut oil				
	(fatty acids, reaction products with polyesters, melamine resin-contg. water-thinned <b>coatings</b> , for <b>aluminum</b> )				
IT	7429-90-5, uses and miscellaneous				
RL:	USES (Uses)				
	(coatings for, water-thinned melamine resin-contg. polyesters as)				
IT	62601-52-9				
RL:	TEM (Technical or engineered material use); USES (Uses)				
	(coatings, contg. polyesters, water-thinned, for aluminum)				
IT	62548-80-5 <b>62548-81-6</b> 62548-82-7D, coconut oil fatty acid-modified 62548-83-8 <b>62548-84-9</b>				

KATHLEEN FULLER EIC 1700/PARKER IAW 308-4290

RL: TEM (Technical or engineered material use); USES (Uses)  
 (coatings, water-thinned, contg. melamine resins, for aluminum)  
 IT **62548-81-6 62548-84-9**  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (coatings, water-thinned, contg. melamine resins, for aluminum)  
 RN 62548-81-6 HCAPLUS  
 CN Hexanedioic acid, polymer with 1H,3H-benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone, 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and 1,3-isobenzofurandione (9CI) (CA INDEX NAME)

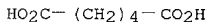
CM 1

CRN 126-30-7  
 CMF C5 H12 O2



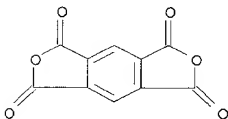
CM 2

CRN 124-04-9  
 CMF C6 H10 O4



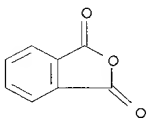
CM 3

CRN 89-32-7  
 CMF C10 H2 O6



CM 4

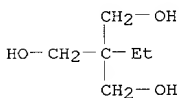
CRN 85-44-9  
 CMF C8 H4 O3



CM 5

CRN 77-99-6

CMF C6 H14 O3



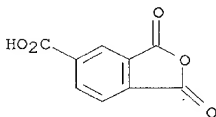
RN 62548-84-9 HCAPLUS

CN Hexanedioic acid, polymer with 1,3-dihydro-1,3-dioxo-5-isobenzofurancarboxylic acid, 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and 1,3-isobenzofurandione (9CI)  
(CA INDEX NAME)

CM 1

CRN 552-30-7

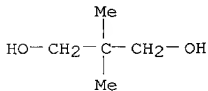
CMF C9 H4 O5



CM 2

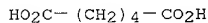
CRN 126-30-7

CMF C5 H12 O2



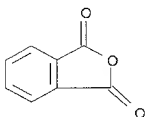
CM 3

CRN 124-04-9  
CMF C6 H10 O4



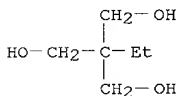
CM 4

CRN 85-44-9  
CMF C8 H4 O3



CM 5

CRN 77-99-6  
CMF C6 H14 O3



L56 ANSWER 25 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN  
AN 1975:517240 HCAPLUS  
DN 83:117240  
TI Stabilized coating **composition**  
IN Chang, Wen-Hsuan; Porter, Samuel, Jr.; Wismer, Marco  
PA PPG Industries, Inc.  
SO Ger. Offen., 27 pp.  
CODEN: GWXXBX  
DT Patent  
LA German  
IC C09D  
CC 42-10 (Coatings, Inks, and Related Products)  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2407532	A1	19741128	DE 1974-2407532	19740216
	DE 2407532	B2	19760624		
	DE 2407532	C3	19770210		
	SE 404195	C	19790104	SE 1974-1148	19740129

SE 404195	B	19780925		
CA 1040785	Al	19781017	CA 1974-192135	19740208
GB 1459523	A	19761222	GB 1974-8068	19740222
AU 7466733	Al	19750918	AU 1974-66733	19740315
BR 7402481	A	19751202	BR 1974-2481	19740329
JP 50027828	A2	19750322	JP 1974-55311	19740514
JP 52024927	B4	19770705		
FR 2229746	Al	19741213	FR 1974-16932	19740515
IT 1014193	A	19770420	IT 1974-68521	19740515
US 4125570	A	19781114	US 1977-774296	19770304
PRAI US 1973-361011		19730516		

AB Thermoset coatings with improved gloss retention, useful on automobiles, contain OH-contg. thermoset resins, aminoplasts, and .gtoreq.0.01% OH-free secondary or tertiary aliph. amine stabilizer. Thus, a mixt. of 55% MeCOBu soln. of polyurethane [54682-75-6] (acid no. .apprx.3.7, prepd. from 9300 parts adipic acid-isophthalic acid-neopentyl glycol-trimethylolpropane polymer, OH no. 53, acid no. .apprx.6, and 695 parts methylenedi-4,1-cyclohexylene isocyanate) 184, butylated melamine resin 78, cellulose acetate butyrate 20, N-(2-hydroxyethyl)ethylenimine-isophthalic acid-neopentyl glycol-sebacic acid-trimethylolpropane polymer, antioxidant 4.0, light stabilizer 4.0, p-MeC6H4SO3H 1.0, Et2NH 0.6, silicone 3.0, BuOH 44, pigments, and iso-BuCOMe 132 parts contg. 0.05-1.0% triethylenediamine (I) [280-57-9] **coated on metal** and baked 30 min at 121.degree. has better gloss retention than in the absence of I.

ST aminoplast thermoset coating; gloss retention coating; triethylenediamine stabilizer coating; polyester polyurethane coating

IT Urethane polymers, uses and miscellaneous  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (coatings, contg. aminoplasts, with improved gloss retention)

IT Coating materials  
 (polyesters, polyurethanes and aminoplasts, contg. amine stabilizers for improved gloss retention)

IT 54682-74-5 **54682-75-6** 54871-09-9  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (coatings, contg. aminoplasts, with improved gloss retention)

IT 110-91-8 280-57-9 3463-21-6  
 RL: USES (Uses)  
 (stabilizers, for thermoset coatings with improved gloss retention)

IT **54682-75-6**  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (coatings, contg. aminoplasts, with improved gloss retention)

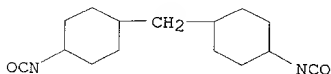
RN 54682-75-6 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, hexanedioic acid and 1,1'-methylenebis[4-isocyanatocyclohexane] (9CI) (CA INDEX NAME)

CM 1

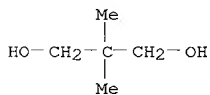
CRN 5124-30-1

CMF C15 H22 N2 O2



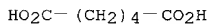
CM 2

CRN 126-30-7  
CMF C5 H12 O2



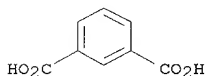
CM 3

CRN 124-04-9  
CMF C6 H10 O4



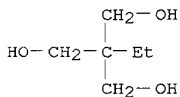
CM 4

CRN 121-91-5  
CMF C8 H6 O4



CM 5

CRN 77-99-6  
CMF C6 H14 O3



L56 ANSWER 26 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN  
AN 1970:478651 HCAPLUS  
DN 73:78651  
TI Polyester resin-modified vinyl resin coating **compositions**  
IN Pontius, Jerry D.; Taylor, Meredith F.; Tieri, Caesar W., Jr.

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290



PA Sherwin-Williams Co.  
SO U.S., 4 pp.  
CODEN: USXXAM  
DT Patent  
LA English  
IC C08F; C08G  
NCL 260032800  
CC 42 (Coatings, Inks, and Related Products)  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3520844	A	19700721	US 1967-674717	19671012
PRAI	US 1967-674717		19671012		

AB Coatings with excellent hot hardness, gloss, and which require less plasticizer for good flexibility are prepd. from solns. of vinyl chloride-vinyl acetate-maleic anhydride copolymers (I), satd. oil-free polyesters, N-contg. crosslinking agents, and various carriers, heat stabilizers, marproofing agents, plasticizers, and acid catalysts. Thus, a polyester resin prepd. from trimethylolpropane, neopentyl glycol, adipic acid, and isophthalic acid was dissolved in a xylene-ethylene glycol mono-Bu ether mixed solvent to form a 60% solids soln. (A). A pigment dispersion prepd. from isophorone, a vinyl chloride vinylacetate copolymer, castor oil as dispersant, and TiO<sub>2</sub> is blended with a resin soln. comprising isophorone, naphtha, and a I to yield a mixt., which was blended with A and treated with Cymel 301 as cross-linking agent, a wax soln., heat stabilizers, flow additives, and Aerosol OT acid catalyst at 130.degree.F to give a coating compn. useful for application on refrigerator linings or metals.

ST ~~metals resinous coatings; vinyl resin coatings;~~  
coatings vinyl resin; polyester modified coatings; crosslinking vinyl copolymers; maleic anhydride copolymers; refrigerator linings coatings

IT Coating materials  
(polyesters, vinyl copolymer-modified, on refrigerator linings)

IT 25085-82-9, uses and miscellaneous  
RL: TEM (Technical or engineered material use); USES (Uses)  
(coatings, contg. polyesters)

IT 25950-34-9 **28430-17-3 28477-54-5**  
RL: TEM (Technical or engineered material use); USES (Uses)  
(coatings, contg. vinyl acetate copolymers)

IT **28430-18-4P**  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of)

IT **28430-17-3 28477-54-5**  
RL: TEM (Technical or engineered material use); USES (Uses)  
(coatings, contg. vinyl acetate copolymers)

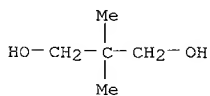
RN 28430-17-3 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, hexanedioic acid and 1,2-propanediol (9CI) (CA INDEX NAME)

CM 1

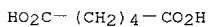
CRN 126-30-7

CMF C5 H12 O2



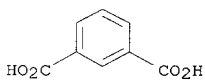
CM 2

CRN 124-04-9  
CMF C6 H10 O4



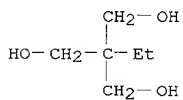
CM 3

CRN 121-91-5  
CMF C8 H6 O4



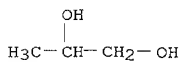
CM 4

CRN 77-99-6  
CMF C6 H14 O3



CM 5

CRN 57-55-6  
CMF C3 H8 O2



RN 28477-54-5 HCAPLUS

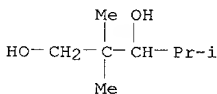
KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

CN 1,3-Benzenedicarboxylic acid, polymer with 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, hexanedioic acid and 2,2,4-trimethyl-1,3-pentanediol (9CI) (CA INDEX NAME)

CM 1

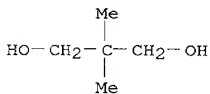
CRN 144-19-4  
CMF C8 H18 O2

*Has all components*



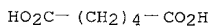
CM 2

CRN 126-30-7  
CMF C5 H12 O2



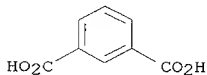
CM 3

CRN 124-04-9  
CMF C6 H10 O4



CM 4

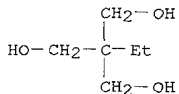
CRN 121-91-5  
CMF C8 H6 O4



CM 5

CRN 77-99-6

CMF C6 H14 O3



IT 28430-18-4P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of)

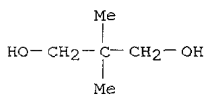
RN 28430-18-4 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 2,2-dimethyl-1,3-propanediol,  
1,2-ethanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and hexanedioic  
acid (9CI) (CA INDEX NAME)

CM 1

CRN 126-30-7

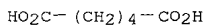
CMF C5 H12 O2



CM 2

CRN 124-04-9

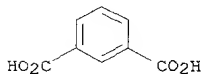
CMF C6 H10 O4



CM 3

CRN 121-91-5

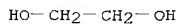
CMF C8 H6 O4



CM 4

CRN 107-21-1

CMF C2 H6 O2



CM 5

CRN 77-99-6  
CMF C6 H14 O3

